

=> d his

```
(FILE 'HOME' ENTERED AT 13:42:36 ON 15 FEB 2005)
SET COST OFF

FILE 'REGISTRY' ENTERED AT 13:42:48 ON 15 FEB 2005
L1      34149 S K[LR][YF]D/SQSP

FILE 'REGISTRY' ENTERED AT 13:48:10 ON 15 FEB 2005
L2      4845 S L1 AND SQL<=209
L3      1518 S K[LR][YF]D.{0-12}^/SQSP
L4      1337 S L3 AND L1
L5      689  S L2 AND L4
          SAV L5 HOPE753/A

FILE 'HCAPLUS' ENTERED AT 13:51:11 ON 15 FEB 2005
L6      405  S L5
L7      3 S US20040138127/PN OR US2004-753646#/AP,PRN
          E DAVIDSON D/AU
L8      102  S E3,E13
          E DAVIDSON DON/AU
L9      62   S E3,E5,E6,E12,E13
          E WANG J/AU
L10     270  S E55-E60
          E WANG JI/AU
L11     94   S E3,E18
          E WANG JIE/AU
L12     648  S E3
          E WANG JIEYI/AU
L13     40   S E3
          E GUBBINS E/AU
L14     31   S E3,E4,E6,E7
          E ABBOT/PA,CS
L15     9014 S E3,E4 OR ABBOT?/PA,CS
L16     3 S L6 AND L7
L17     7 S L8-L15 AND L6
L18     7 S L16,L17
L19     45 S L6 AND (PD<=19960503 OR PRD<=19969593 OR AD<=19960503)
L20     4 S L18 AND L19
L21     3 S L18 NOT L20
L22     7 S L20,L21
          E ANGIOGEN/CT
          E E4+ALL
L23     14221 S E5+NT
L24     1247 S E24,E32,E33,E42,E43,E49,E50
L25     5603 S E59
          E E63+ALL
L26     3153 S E3,E4,E2+NT
L27     6 S L19 AND L23-L26
L28     7 S L19 AND ?ANGIOGEN?
L29     0 S L19 AND ?NEOVASCULARIS?
L30     0 S L19 AND ?NEOVASCULARIZ?
L31     0 S L19 AND ?VASCULARIZ?
L32     10 S L22,L27,L28
L33     38 S L19 NOT L32
L34     3 S L33 AND PLASMINOGEN
L35     8 S L32 AND PLASMINOGEN
L36     13 S L32,L34,L35
          SEL HIT RN

FILE 'REGISTRY' ENTERED AT 14:01:01 ON 15 FEB 2005
L37    51 S E1-E51
L38    51 S L37 AND L5
```

SAV L38 HOPE753A/A

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 14:01:35 ON 15 FEB 2005
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
 COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 15 Feb 2005 VOL 142 ISS 8
 FILE LAST UPDATED: 14 Feb 2005 (20050214/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l36 all tot

L36 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2004:176555 HCAPLUS
 DN 140:229440
 ED Entered STN: 04 Mar 2004
 TI Antiangiogenic peptides derived from mammalian protein kringle 5 and use for treating angiogenic diseases
 IN Davidson, Donald J.
 PA Abbott Laboratories, USA
 SO U.S., 47 pp., Cont.-in-part of U.S. Ser. No. 851,350.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM A61K038-00
 NCL 514012000; 514002000; 514013000; 514014000; 514015000; 514016000;
 514017000; 514018000; 514648000; 514336000
 CC 1-8 (Pharmacology)
 Section cross-reference(s): 3, 6, 13



FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6699838	B1	20040302	US 1997-924287	19970905 <-
	US 5801146	A	19980901	US 1996-643219	19960503 <-
	US 5981484	A	19991109	US 1997-832087	19970403 <-
	US 6057122	A	20000502	US 1997-851350	19970505 <-
	US 2004138127	A1	20040715	US 2004-753646	20040108 <-
PRAI	US 1996-643219	A2	19960503	<-	
	US 1997-832087	A2	19970403		
	US 1997-851350	A2	19970505		
	US 1997-924287	A1	19970905		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6699838	ICM	A61K038-00
	NCL	514012000; 514002000; 514013000; 514014000; 514015000; 514016000; 514017000; 514018000; 514648000; 514336000

US 6699838 ECLA C12N009/68 <--
 US 5801146 ECLA C12N009/68 <--
 US 5981484 ECLA C12N009/68 <--
 US 6057122 ECLA C12N009/68 <--
 US 2004138127 ECLA C12N009/68 <--

AB The invention provides mammalian kringle 5 fragments and kringle 5 fusion proteins as a compds. for treating angiogenic diseases. The invention also provides methods and compns. for inhibiting angiogenic diseases.

ST antiangiogenic peptide human protein kringle angiogenesis

IT Angiogenesis inhibitors
 Human
 Protein sequences
 (antiangiogenic peptides derived from mammalian protein kringle 5 and use for treating angiogenic diseases)

IT Peptides, biological studies
 RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (antiangiogenic peptides derived from mammalian protein kringle 5 and use for treating angiogenic diseases)

IT Fusion proteins (chimeric proteins)
 RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (k5; antiangiogenic peptides derived from mammalian protein kringle 5 and use for treating angiogenic diseases)

IT Protein motifs
 (kringles; antiangiogenic peptides derived from mammalian protein kringle 5 and use for treating angiogenic diseases)

IT 666829-12-5P 666867-41-0P 666867-42-1P 666867-43-2P
 RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (antiangiogenic peptide sequence; antiangiogenic peptides derived from mammalian protein kringle 5 and use for treating angiogenic diseases)

IT 666870-06-0 666870-07-1 666870-08-2 666870-09-3 666870-10-6
 666870-11-7, 8: PN: US6699838 SEQID: 8 unclaimed DNA 666870-12-8, 9: PN: US6699838 SEQID: 9 unclaimed DNA 666870-13-9 666870-14-0 666870-15-1
 666870-16-2 666870-17-3 666870-18-4 666870-19-5 666870-20-8
 666870-21-9 666870-22-0 666870-23-1 666870-24-2 666870-25-3
 666870-26-4 666870-27-5 666870-28-6 666870-29-7 666870-30-0
 666870-31-1 666870-32-2 666870-33-3 666870-34-4
 RL: PRP (Properties)
 (unclaimed nucleotide sequence; antiangiogenic peptides derived from mammalian protein kringle 5 and use for treating angiogenic diseases)

IT 666870-05-9 666870-35-5 666870-36-6
 666870-37-7 666870-38-8 666870-39-9
 RL: PRP (Properties)
 (unclaimed protein sequence; antiangiogenic peptides derived from mammalian protein kringle 5 and use for treating angiogenic diseases)

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Anon; WO 9204450 1992 HCAPLUS
 (2) Anon; WO 9529242 1995 HCAPLUS
 (3) Anon; WO 9723500 1997 HCAPLUS
 (4) Anon; SCRIP 1996, V2120, P21
 (5) Fidler, I; Cell 1994, V79, P185 HCAPLUS
 (6) Folkman, J; Journ of Biological Chemistry 1992, V267(16), P10931 HCAPLUS
 (7) Folkman, J; Science 1987, V235, P442 HCAPLUS
 (8) Folkman, J; The New England Journal of Medicine 1995, V333(26), P1757
 MEDLINE

- (9) Gasparini, G; Journ of Clinical Oncology 1995, V13(3), P765 MEDLINE
 (10) Halperin; US 5512591 A 1996 HCAPLUS
 (11) Kolberg, R; Journal of NIH Research 1994, V8, P31
 (12) McCance, S; Journal of Biological Chemistry 1994, V269, P32405 HCAPLUS
 (13) Menhart, N; Biochemistry 1993, V32, P8799 HCAPLUS
 (14) Novokhatny, V; J Mol Biol 1984, V179, P215 MEDLINE
 (15) O'Reilly, M; Cell 1994, V79, P315 HCAPLUS
 (16) Reich; US 5407673 A 1995 HCAPLUS
 (17) Sottrup-Jensen, L; Progress in Chemical Fibrinolysis and Thrombolysis 1978, V3, P191 HCAPLUS
 (18) Teicher, B; Breast Cancer Research and Treatment 1995, V36, P227 HCAPLUS
 (19) Teicher, B; Cancer Chemother Pharmacol 1993, V33, P229 HCAPLUS
 (20) Teicher, B; Cancer Research 1992, V52, P6702 HCAPLUS
 (21) Teicher, B; Int J Cancer 1994, V57, P920 HCAPLUS
 (22) Teicher, B; Int J Cancer 1995, V61, P732 HCAPLUS
 (23) Teicher, B; Oncology Research 1995, V7(5), P237 HCAPLUS
 (24) Teicher, B; Radiation Oncology Investigations 1995, V2, P269
 (25) Thewes, T; Database Medline 1987
 (26) Thewes, T; Journal of Biological Chemistry 1990, V265(7), P3906 HCAPLUS
 (27) Varadi, A; Biochemical and biophysical Research Communications 1981, V103, P97 HCAPLUS
 (28) Weidner, N; The New England Journal of Medicine 1991, V324(1), P1 MEDLINE

L36 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2004:99288 HCAPLUS
 DN 140:331802
 ED Entered STN: 06 Feb 2004
 TI Lysyl 4-aminobenzoic acid derivatives as potent small molecule mimetics of plasminogen kringle 5
 AU Sheppard, George S.; Kawai, Megumi; Craig, Richard A.; Davidson, Donald J.; Majest, Sandra M.; Bell, Randy L.; Henkin, Jack
 CS Abbott Laboratories, Global Pharmaceutical Research and Development, Abbott Park, IL, 60064, USA
 SO Bioorganic & Medicinal Chemistry Letters (2004), 14(4), 965-966
 CODEN: BMCLE8; ISSN: 0960-894X
 PB Elsevier Science B.V.
 DT Journal
 LA English
 CC 1-3 (Pharmacology)
 Section cross-reference(s): 34
 OS CASREACT 140:331802
 AB Kringle 5, a proteolytic fragment of human plasminogen has been shown to potently inhibit angiogenesis. The tetrapeptide KLYD derived from kringle 5 has been shown to capture many activities of kringle 5 in vitro. Further simplification has been achieved by replacement of the two central amino acids with a 4-aminobenzoic acid spacer group. Mols. displaying the required recognition groups on this core show similar in vitro properties to kringle 5, and are able to displace radiolabeled protein from a high affinity binding site on endothelial cells.
 ST lysyl aminobenzoic acid deriv prepns plasminogen kringle mimetic angiogenesis
 IT Blood vessel
 (endothelium; preparation of lysyl 4-aminobenzoic acid derivs. as potent small mol. mimetics of plasminogen kringle 5 that inhibit HMVEC chemotaxis)
 IT Protein motifs
 (kringles; preparation of lysyl 4-aminobenzoic acid derivs. as potent small mol. mimetics of plasminogen kringle 5 that inhibit HMVEC chemotaxis)
 IT Angiogenesis inhibitors
 Chemotaxis
 Human
 Peptidomimetics

Structure-activity relationship

(preparation of lysyl 4-aminobenzoic acid derivs. as potent small mol.
 mimetics of plasminogen kringle 5 that inhibit HMVEC
 chemotaxis)

IT Endothelium
 (vascular; preparation of lysyl 4-aminobenzoic acid derivs. as potent small mol. mimetics of plasminogen kringle 5 that inhibit HMVEC chemotaxis)

IT 9001-91-6, Plasminogen
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (preparation of lysyl 4-aminobenzoic acid derivs. as potent small mol.
 mimetics of plasminogen kringle 5 that inhibit HMVEC
 chemotaxis)

IT 250789-27-6P 250789-59-4P 250789-78-7P 250789-79-8P
 679784-35-1P 679784-36-2P 679784-37-3P 679784-38-4P
 RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of lysyl 4-aminobenzoic acid derivs. as potent small mol.
 mimetics of plasminogen kringle 5 that inhibit HMVEC
 chemotaxis)

IT 679784-39-5
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (preparation of lysyl 4-aminobenzoic acid derivs. as potent small mol.
 mimetics of plasminogen kringle 5 that inhibit HMVEC
 chemotaxis)

IT 692-04-6 1155-64-2 2389-45-9 4530-20-5 6404-28-0 13795-73-8,
 L-Aspartic acid, bis(1,1-dimethylethyl) ester 18144-47-3, tert-Butyl
 4-aminobenzoate 21887-64-9 156682-54-1, 3-(Benzylxy)phenylboronic
 acid 250790-07-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of lysyl 4-aminobenzoic acid derivs. as potent small mol.
 mimetics of plasminogen kringle 5 that inhibit HMVEC
 chemotaxis)

IT 250790-08-0P 679784-40-8P 679784-41-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of lysyl 4-aminobenzoic acid derivs. as potent small mol.
 mimetics of plasminogen kringle 5 that inhibit HMVEC
 chemotaxis)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Cao, Y; J Biol Chem 1997, V272, P22924 HCPLUS
- (2) Davidson, D; 215th ACS National Meeting 1998, Abstract MEDI-207
- (3) Davidson, D; Proc Am Assoc Cancer Res 2000, V41, P486
- (4) Hanahan, D; Cell 1996, V86, P353 HCPLUS
- (5) Majest, S; Proc Am Assoc Cancer Res 2001, V42, P484
- (6) Pozdneva, V; Int J Pept Prot Res 1994, V44, P36 HCPLUS
- (7) Qian, Y; J Biol Chem 1994, V269, P12410 HCPLUS

L36 ANSWER 3 OF 13 HCPLUS COPYRIGHT 2005 ACS on STN

AN 2003:448045 HCPLUS

DN 139:30780

ED Entered STN: 11 Jun 2003

TI Methods and compositions for generating angiostatin

IN Soff, Gerald; Gately, Stephen T.; Twardowski, Przemyslaw

PA Northwestern University, USA

SO U.S., 46 pp., Cont.-in-part of U.S. Ser. No. 710,305.

CODEN: USXXAM

DT Patent

LA English

IC ICM A61K038-00

NCL 514012000; 435217000; 530350000; 530380000

CC 1-6 (Pharmacology)

Section cross-reference(s) : 2

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6576609	B1	20030610	US 1997-991761	19971216 <--
	US 5801012	A	19980901	US 1996-710305	19960917
	WO 9815574	A1	19980416	WO 1997-US16539	19970917 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
PRAI	US 1996-710305	A2	19960917	<--	
	WO 1997-US16539	A1	19970917		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
	US 6576609	ICM	A61K038-00	
		NCL	514012000; 435217000; 530350000; 530380000	
	US 6576609	ECLA	A61K038/16B1+M; A61K038/49+M; C12N009/68	<--
	US 5801012	ECLA	A61K038/16B1+M; A61K038/49+M; C12N009/68	
	WO 9815574	ECLA	A61K038/16B1+M; A61K038/49+M; C12N009/68	<--

AB The invention provides a method of treating a neoplastic disease in a human by administering a therapeutically effective amount of plasminogen activator effective to increase the amount of angiostatin present in the human to treat the disease. The invention also provides a method of treating a neoplastic disease in a human by administering a therapeutically effective amount of plasminogen activator and sulfhydryl donor effective to increase the amount of angiostatin present in the human to treat said disease.

ST angiostatin generation plasminogen activator sulfhydryl donor; neoplasm treatment angiostatin generation plasminogen activator

IT Sulfhydryl group
(donors; generating angiostatin using plasminogen activator and sulfhydryl donor to treat neoplastic disease)

IT Angiogenesis inhibitors
Antitumor agents
Drug interactions
Human
Neoplasm
(generating angiostatin using plasminogen activator and sulfhydryl donor to treat neoplastic disease)

IT Angiogenesis
(inhibition; generating angiostatin using plasminogen activator and sulfhydryl donor to treat neoplastic disease)

IT Neoplasm
(metastasis; generating angiostatin using plasminogen activator and sulfhydryl donor to treat neoplastic disease)

IT 354138-63-9 537677-42-2
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(angiostatin C-terminal sequence; generating angiostatin using plasminogen activator and sulfhydryl donor to treat neoplastic disease)

IT 337363-93-6 354138-60-6 354138-61-7
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(angiostatin N-terminal sequence; generating angiostatin using plasminogen activator and sulfhydryl donor to treat neoplastic disease)

IT 9001-90-5, Plasmin 9001-91-6, **Plasminogen**
 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
 THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (angiostatin generation from; generating angiostatin using
 plasminogen activator and sulfhydryl donor to treat neoplastic
 disease)

IT 86090-08-6, Angiostatin
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (generating angiostatin using plasminogen activator and
 sulfhydryl donor to treat neoplastic disease)

IT 52-67-5, D-Penicillamine 52-90-4, Cysteine, biological studies
 70-18-8, Reduced glutathione, biological studies 616-91-1,
 N-Acetylcysteine 9002-01-1, Streptokinase 9039-53-6, Urokinase
 62571-86-2, Captopril 105913-11-9, **Plasminogen activator**
 139639-23-9, Tissue **plasminogen activator**
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (generating angiostatin using plasminogen activator and
 sulfhydryl donor to treat neoplastic disease)

IT 541557-34-0 541557-35-1 541557-36-2 541557-37-3 541557-38-4
 541557-39-5 541557-40-8
 RL: PRP (Properties)
 (unclaimed protein sequence; methods and compns. for generating
 angiostatin)

IT 53620-20-5 92662-83-4 541557-41-9
 RL: PRP (Properties)
 (unclaimed sequence; methods and compns. for generating angiostatin)

RE.CNT 86 THERE ARE 86 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Albiui, A; Intl J Cancer 1995, V61(1), P121
- (2) Anon; WO 9012580 1990 HCAPLUS
- (3) Anon; WO 9110424 1991 HCAPLUS
- (4) Anon; WO 9529242 1995 HCAPLUS
- (5) Anon; WO 9635774 1996 HCAPLUS
- (6) Anon; WO 9641194 1996 HCAPLUS
- (7) Anon; WO 9715666 1997 HCAPLUS
- (8) Anon; WO 9723500 1997 HCAPLUS
- (9) Anon; WO 9741824 1997 HCAPLUS
- (10) Anon; WO 9854217 1998 HCAPLUS
- (11) Anon; WO 9900420 1999 HCAPLUS
- (12) Arrigoni-Martelli; Eur J Rheumatol Inflamm 1978, V1, P197 HCAPLUS
- (13) Ashino-Fuse; Int J Cancer 1989, V44, P859 HCAPLUS
- (14) Battegay; J Mol Med 1995, V73, P333 HCAPLUS
- (15) Bell; Semin Thromb Hemost 1996, V12, P459
- (16) Berman; Invest Ophthalmol Vis Sci 1982, V22, P191 HCAPLUS
- (17) Bianchi; Cancer Research 1994, V54, P861 HCAPLUS
- (18) Blei; J Cell Physiol 1993, V155, P568 HCAPLUS
- (19) Brem; American Journal of Pathology 1990, V137(5), P1121 HCAPLUS
- (20) Brem; Lancet 1995, V345, P1008 MEDLINE
- (21) Calbo, F; Cancer 1992, V70(11), P2624
- (22) Cao; US 5854221 A 1998 HCAPLUS
- (23) Cao; J Biol Chem 1997, V272(36), P22924 HCAPLUS
- (24) Castellino; Methods Enzymol 1981, V80, P365 HCAPLUS
- (25) Chen; Cancer Research 1995, V55, P4230 HCAPLUS
- (26) Claremon; US 4968494 A 1990 HCAPLUS
- (27) Dameron; Science 1994, V265, P1582 HCAPLUS
- (28) Devlin; TM-Text book of Modern 1982, P483
- (29) Dong; Cell 1997, V88, P801 HCAPLUS
- (30) Dong; Proc Am Assoc Cancer Res 1996, V37, P58
- (31) D'Amato; US 5504074 A 1996 HCAPLUS
- (32) Engleka, K; J Biol Chem 1992, V267(16), P11307 HCAPLUS
- (33) Folkman; US 5021404 A 1991 HCAPLUS
- (34) Folkman; US 5135919 A 1992 HCAPLUS

- (35) Folkman; US 5290807 A 1994 HCAPLUS
 (36) Folkman; US 5837682 A 1998 HCAPLUS
 (37) Folkman; US 5861372 A 1999 HCAPLUS
 (38) Folkman; US 6024688 A 2000 HCAPLUS
 (39) Folkman; J Biol Chem 1992, V267, P10931 HCAPLUS
 (40) Gately; Cancer Res 1996, V56, P4887 HCAPLUS
 (41) Gately; Cancer Res 1996, V56, P4887 HCAPLUS
 (42) Goldfarb; Seminars Thromb Hemostat 1986, V12(4), P337 HCAPLUS
 (43) Gonzalez-Lois, C; Archives Path Lab Med 2001, V125(6), P796 MEDLINE
 (44) Heussen; Anal Biochem 1980, V102, P196 HCAPLUS
 (45) Honold; US 5888967 A 1999 HCAPLUS
 (46) Hourani; Laboratory Investigation 1969, V21(5), P434 HCAPLUS
 (47) Jacobi; US 4011142 A 1977 HCAPLUS
 (48) Jellum; Annals of the Rheumatic Diseases 1980, V39, P155 HCAPLUS
 (49) Jellum; Annals of the Rheumatic Diseases 1982, V41, P431 MEDLINE
 (50) Jellum; Scand J Rheumatology 1979, V28(supp), P28
 (51) Kishimoto; US 5698586 A 1997 HCAPLUS
 (52) Koch, A; Aents Action 1991, V34(3-4), P350 HCAPLUS
 (53) Laemmlli; Nature 1970, V227, P680 HCAPLUS
 (54) Lannutti; Cancer Research 1997, V57, P5277 HCAPLUS
 (55) Littman; P S E B M 1963, V113, P667 HCAPLUS
 (56) Lu; FEBS Let 1994, V356, P56 HCAPLUS
 (57) Maloau, W; Aido Res Human Retrovirus 1998, V14(17), P1589
 (58) Mandriota; J Biol Chem 1995, V270(17), P9709 HCAPLUS
 (59) Matsubara; J Clin Invest 1989, V83, P158 HCAPLUS
 (60) Meehan; Blood Coagulation & Fibrinolysis 1995, V6, P105 MEDLINE
 (61) Mignatti; J Cell Biol 1991, V113(5), P1193 HCAPLUS
 (62) Min; Cancer Res 1996, V56, P2428 HCAPLUS
 (63) Montesano; Proc Natl Acad Sci 1986, V83, P7297 HCAPLUS
 (64) Mooser; J Clin Invest 1996, V97(3), P858 HCAPLUS
 (65) Munthe; J Rheumatol 1981, V8(supp 7), P14
 (66) Munthe; Scand J Rheumatology 1979, V28(supp), P6
 (67) Munthe; XVII Nordic Congress of Rheumatology in Helsingør, abstract #42
 1978, P21
 (68) O'Reilly; US 5639725 A 1997 HCAPLUS
 (69) O'Reilly; US 5733876 A 1998 HCAPLUS
 (70) O'Reilly; US 5776704 A 1998 HCAPLUS
 (71) O'Reilly; US 5792845 A 1998 HCAPLUS
 (72) O'Reilly; US 5885795 A 1999 HCAPLUS
 (73) O'Reilly; Cell 1994, V79, P315 HCAPLUS
 (74) O'Reilly; Cold Spr Harb Symp Quant Biol 1994, V59, P471 HCAPLUS
 (75) O'Reilly; Nature Med 1996, V2, P689 HCAPLUS
 (76) Polverini; Methods Enzymol 1991, V198, P440 HCAPLUS
 (77) Rifkin; Acta Biol Med Germ 1981, V40, P1259 HCAPLUS
 (78) Schnaper; J Cell Physiol 1993, V156, P235 HCAPLUS
 (79) Soff; J Clin Invest 1995, V96, P2593 HCAPLUS
 (80) Sottrup-Jensen; Progress in Chemical Fibrinolysis and Thrombolysis 1978,
 V3, P191 HCAPLUS
 (81) Stathakis; J Biol Chem 1997, V272(33), P20641 HCAPLUS
 (82) Sueishi; Ann NY Acad Sci 1990, V598, P223 MEDLINE
 (83) Takano; Cancer Res 1994, V54, P2654 HCAPLUS
 (84) Tsuji, A; Clin Exp Immunol 1993, V93(3), P308 HCAPLUS
 (85) Volpert; J Clin Invest 1996, V98(3), P671 HCAPLUS
 (86) Yasunaga; Laboratory Investigation 1989, V61(6), P698 MEDLINE

L36 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2003:261008 HCAPLUS
 DN 138:281097
 ED Entered STN: 04 Apr 2003
 TI Angiostatin fragments and method of use
 IN Folkman, M. Judah; O'Reilly, Michael S.; Cao, Yihai; Sim, Kim Lee
 PA USA
 SO U.S. Pat. Appl. Publ., 96 pp., Cont.-in-part of U.S. Ser. No. 335,325.

CODEN: USXXCO

DT Patent
 LA English
 IC ICM A61K038-22
 NCL 514012000
 CC 1-6 (Pharmacology)

Section cross-reference(s): 3, 16

FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 2003064926	A1	20030403	US 2002-127066	20020422 <--	
	US 5639725	A	19970617	US 1994-248629	19940426 <--	
	US 5792845	A	19980811	US 1994-326785	19941020 <--	
	US 5885795	A	19990323	US 1995-429743	19950426 <--	
	US 5837682	A	19981117	US 1996-612788	19960308 <--	
	US 5945403	A	19990831	US 1997-866735	19970530	
	US 6024688	A	20000215	US 1998-66028	19980424 <--	
	US 2002164717	A1	20021107	US 1999-335325	19990617 <--	
	US 6521439	B2	20030218			
	US 2002037847	A1	20020328	US 2001-761120	20010116	
	US 2001029246	A1	20011011	US 2001-788142	20010216	
	US 2004002459	A1	20040101	US 2003-402364	20030328	
	PRAI	US 1994-248629	A2	19940426	<--	
		US 1994-326785	A2	19941020	<--	
		US 1995-429743	A2	19950426	<--	
US 1996-612788		A3	19960308	<--		
US 1997-866735		A3	19970530			
US 1998-66028		A3	19980424			
US 1999-309821		B1	19990511			
US 1999-335325		A1	19990617			
US 1999-338387		B1	19990622			
US 2001-788142		A2	20010216			
US 2001-761120		B1	20010116			

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
US	2003064926	ICM	A61K038-22	
		NCL	514012000	
	2003064926	ECLA	C12N009/68; G01N033/574	<--
	5639725	ECLA	C12N009/68; G01N033/574	<--
	5792845	ECLA	C12N009/68; G01N033/574	<--
	5885795	ECLA	C12N009/68; G01N033/574	<--
	5837682	ECLA	C12N009/68	<--
	5945403	ECLA	C12N009/68	
	6024688	ECLA	C12N009/68	<--
	2002164717	ECLA	C12N009/68	<--
	2002037847	ECLA	C12N009/68	
	2001029246	ECLA	C12N009/68	
	2004002459	ECLA	C12N009/68	

AB Fragments of an endothelial cell proliferation inhibitor and method of use therefor are provided. The endothelial proliferation inhibitor is a protein derived from plasminogen, or more specifically is an angiostatin fragment. The angiostatin fragments generally correspond to kringle structures occurring within the endothelial cell proliferation inhibitor. The endothelial cell inhibiting activity of these fragments provides a means for inhibiting angiogenesis of tumors and for treating angiogenic-mediated disease. Angiostatin was cloned in *Pichia pastoris* and purified from fermentation broth by lysine-Sepharose 4B. The purified recombinant angiostatin inhibited the bFGF-driven proliferation of bovine endothelial cells in vitro in a dose dependent manner and suppressed metastases of Lewis lung carcinoma in mice.

ST angiostatin fragment endothelial cell proliferation inhibitor; angiogenesis inhibitor angiostatin fragment; antitumor angiostatin

fragment; metastasis Lewis lung carcinoma inhibition recombinant angiostatin
IT Disease, animal
(angiogenesis-mediated, treatment of; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)
IT Bos taurus
Human
Macaca mulatta
Mus
Sus scrofa domestica
(angiostatin fragment derived from plasminogen of; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)
IT Angiogenesis
Angiogenesis inhibitors
Antiarthritics
Antitumor agents
Apoptosis
Drug delivery systems
Gene therapy
Genetic vectors
Mammalia
Molecular cloning
Protein sequences
(angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)
IT Blood serum
Urine
(angiostatin purification from; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)
IT Lung, neoplasm
Mammary gland, neoplasm
Prostate gland, neoplasm
(carcinoma; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)
IT Eye, disease
(diabetic retinopathy, treatment of; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)
IT Blood vessel
(endothelium, cell proliferation inhibitor; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)
IT Cell
(expressing angiostatin fragment; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)
IT Sarcoma
(fibrosarcoma; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)
IT DNA
Gene, animal
RL: BPN (Biosynthetic preparation); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(for angiostatin fragment inhibiting endothelial cell proliferation; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)
IT Escherichia coli
Pichia pastoris
(human angiostatin expression in; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)
IT Cell proliferation
(inhibition; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)

IT Protein motifs
(kringles; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)

IT Eye, disease
(macula, degeneration, treatment of; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)

IT Carcinoma
(mammary; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)

IT Neoplasm
(metastasis, inhibition of; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)

IT Lung, neoplasm
(metastasis; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)

IT Transformation, genetic
(of angiostatin fragment; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)

IT Carcinoma
(prostatic; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)

IT Carcinoma
(pulmonary; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)

IT Sarcoma
(reticulum cell; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)

IT Arthritis

Neoplasm
(treatment of; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)

IT Endothelium
(vascular, cell proliferation inhibitor; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)

IT 506450-14-2P, Plasminogen (mouse kringle 1 fragment)
506450-15-3P, Plasminogen (human kringle 1 fragment)
506450-16-4P 506450-17-5P, Plasminogen (swine kringle 1 fragment)
506450-18-6P, Plasminogen (cattle kringle 1 fragment)
506450-19-7P, Plasminogen (mouse kringle 2 fragment)
506450-20-0P, Plasminogen (human kringle 2 fragment)
506450-21-1P 506450-22-2P, Plasminogen (swine kringle 2 fragment)
506450-23-3P, Plasminogen (cattle kringle 2 fragment)
506450-24-4P, Plasminogen (mouse kringle 3 fragment)
506450-25-5P, Plasminogen (human kringle 3 fragment)
506450-26-6P 506450-27-7P, Plasminogen (swine kringle 3 fragment)
506450-28-8P, Plasminogen (cattle kringle 3 fragment)
506450-29-9P, Plasminogen (mouse kringle 4 fragment)
506450-30-2P, Plasminogen (human kringle 4 fragment)
506450-31-3P, Plasminogen (mouse kringle 2-3 fragment)
506450-32-4P, Plasminogen (human kringle 2-3 fragment)
506450-33-5P 506450-34-6P, Plasminogen (swine kringle 2-3 fragment)
506450-35-7P 506450-36-8P, Plasminogen (mouse kringle 1-3 fragment)
506450-37-9P, Plasminogen (human kringle 1-3 fragment)
506450-38-0P 506450-39-1P, Plasminogen (swine kringle 1-3 fragment)
506450-40-4P 506450-41-5P, Plasminogen (mouse kringle 1-2 fragment)
506450-42-6P, Plasminogen (human kringle 1-2 fragment)
506450-43-7P 506450-44-8P, Plasminogen (swine kringle 1-2 fragment)
506450-45-9P 506450-46-0P, Plasminogen (mouse kringle 1-4 fragment)
506450-47-1P, Plasminogen (human kringle 1-4 fragment)
506450-48-2P, Plasminogen (mouse kringle 1-4BKLS)
506450-49-3P, Plasminogen (human kringle 1-4BKLS)

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);

PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (amino acid sequence, as angiostatin fragment; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)

IT 506450-13-1, Angiostatin (Rhesus monkey) 506450-50-6,
 Plasminogen (mouse) 506450-51-7, Angiostatin (mouse)
 506450-52-8, Angiostatin (human) 506450-53-9, Angiostatin (swine)
 506450-54-0, Angiostatin (cattle)
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
 (amino acid sequence; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)

IT 9001-91-6, Plasminogen
 RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
 (angiostatin fragment derived from; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)

IT 86090-08-6P, Angiostatin
 RL: BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)

IT 9012-36-6D, Sepharose 4B, conjugates with lysine
 RL: NUU (Other use, unclassified); USES (Uses)
 (in angiostatin purification; angiostatin fragments as endothelial cell proliferation and angiogenesis inhibitors)

IT 506457-30-3 506457-31-4 506457-32-5
 RL: PRP (Properties)
 (unclaimed nucleotide sequence; angiostatin fragments and method of use)

IT 122580-21-6 506457-33-6
 RL: PRP (Properties)
 (unclaimed sequence; angiostatin fragments and method of use)

L36 ANSWER 5 OF 13 HCPLUS COPYRIGHT 2005 ACS on STN
 AN 2000:283962 HCPLUS
 DN 132:304929
 ED Entered STN: 03 May 2000
 TI Method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of plasminogen
 IN Davidson, Donald J.
 PA Abbott Laboratories, USA
 SO U.S., 48 pp., Cont.-in-part of U.S. Ser. No. 832,087.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM C12P021-06
 ICS C07K001-00
 NCL 435068100
 CC 6-3 (General Biochemistry)
 Section cross-reference(s): 1

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6057122	A	20000502	US 1997-851350	19970505 <--
	US 5801146	A	19980901	US 1996-643219	19960503 <--
	US 5981484	A	19991109	US 1997-832087	19970403 <--
	US 6699838	B1	20040302	US 1997-924287	19970905 <--
	US 2004138127	A1	20040715	US 2004-753646	20040108 <--
PRAI	US 1996-643219	A2	19960503	<--	

US 1997-832087	A2	19970403
US 1997-851350	A2	19970505
US 1997-924287	A1	19970905

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
------------	-------	------------------------------------

US 6057122	ICM	C12P021-06	
	ICS	C07K001-00	
	NCL	435068100	
US 6057122	ECLA	C12N009/68	<--
US 5801146	ECLA	C12N009/68	<--
US 5981484	ECLA	C12N009/68	<--
US 6699838	ECLA	C12N009/68	<--
US 2004138127	ECLA	C12N009/68	<--

AB A method of making mammalian kringle 5 peptide fragments corresponding to the 5th kringle domain of mammalian **plasminogen** and having angiogenic inhibitory effect is claimed. The method comprises exposing a mammalian **plasminogen** to elastase at a ratio of about 1:100 to 1:300 (weight/weight) and isolating kringle 5 fragments from the mixture

Kringle 5 peptide fragments were prepared either by porcine elastase proteolytic cleavage of Lys **plasminogen** or synthesized by standard solid phase Fmoc chemical. The inhibition of bovine capillary endothelial cell proliferation and migration by kringle 5 peptide fragments was both potent and specific to the endothelial cells but not normal or tumor cells. Kringle 5 peptide fragments were also produced recombinantly in *Pichia pastoris* and *E. coli*.

ST elastase cleavage mammalian **plasminogen** kringle 5 peptide isolation; kringle 5 peptide sequence mammalian **plasminogen** angiogenesis inhibition

IT Angiogenic factors

Angiogenic factors
Growth inhibitors, animal
Growth inhibitors, animal

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)

(angiogenic growth-inhibiting factors; method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of **plasminogen**)

IT Blood vessel
(endothelium, proliferation and migration of, inhibition by kringle 5 peptide fragments; method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of **plasminogen**)

IT Escherichia coli
Komagataella pastoris
(expression host; method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of **plasminogen**)

IT Cell migration
(inhibitors, of bovine capillary endothelial cell; method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of **plasminogen**)

IT Protein motifs
(kringles; method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of **plasminogen**)

IT Peptides, biological studies
RL: BAC (Biological activity or effector, except adverse); BPR (Biological

process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)

(method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of plasminogen)

IT Cytotoxic agents

(of bovine capillary endothelial cell; method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of plasminogen)

IT Protein sequences

(of human plasminogen fragments; method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of plasminogen)

IT Proliferation inhibition

(proliferation inhibitors, of bovine capillary endothelial cell; method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of plasminogen)

IT 9001-91-6D, Lys plasminogen, de-(1-76) derivs.

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

(Lys plasminogen, kringle 5 peptide fragment source; method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of plasminogen)

IT 265110-89-2

RL: PRP (Properties)

(Unclaimed; method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of plasminogen)

IT 250159-78-5D, 443-543-Plasminogen (human), peptides

250159-79-6D, 449-543-Plasminogen (human), peptides

250159-80-9D, 454-543-Plasminogen (human), peptides

250159-81-0D, 443-546-Plasminogen (human), peptides

250159-83-2D, 449-546-Plasminogen (human), peptides

250159-84-3D, 454-546-Plasminogen (human), peptides

264868-26-0D, 355-543-Plasminogen (human), peptides

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

(amino acid sequence; method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of plasminogen)

IT 109884-31-3, Plasminogen (human)

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

(amino acid sequence; method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of plasminogen)

IT 9001-91-6, Plasminogen

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)

(method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of plasminogen)

IT 9004-06-2, Elastase

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of plasminogen)

IT 199664-76-1P 199664-77-2P 199664-80-7P 199664-81-8P

**199664-82-9P 199664-83-0P 199664-84-1P
 199664-85-2P 199664-86-3P 199664-87-4P
 199664-88-5P 199664-89-6P 199664-90-9P
 199664-91-0P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (synthesis of, antiangiogenic kringle 5 peptide; method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of plasminogen)

IT 140088-37-5 265296-41-1, 22: PN: US6057122 SEQID: 5 unclaimed DNA
 265296-42-2 265296-43-3 265296-44-4 265296-45-5 265296-46-6
 265296-47-7 265296-52-4, 34: PN: US6057122 SEQID: 2 unclaimed DNA
 265296-53-5, 35: PN: US6057122 SEQID: 3 unclaimed DNA 265296-54-6, 36:
 PN: US6057122 SEQID: 4 unclaimed DNA 265296-55-7, 37: PN: US6057122
 SEQID: 7 unclaimed DNA 265296-56-8, 38: PN: US6057122 SEQID: 8 unclaimed
 DNA 265296-57-9, 39: PN: US6057122 SEQID: 9 unclaimed DNA 265296-58-0
 265296-59-1 265296-60-4 265296-61-5 265296-62-6 265296-63-7
 265296-64-8 265296-65-9 265296-66-0 265296-67-1 265296-68-2
 265296-69-3 265296-70-6 265296-71-7, 1: PN: US6057122 FIGURE: 5
 unclaimed DNA

RL: PRP (Properties)
 (unclaimed nucleotide sequence; method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of plasminogen)

IT 265296-48-8 265296-49-9 265296-50-2
 265296-51-3 265317-31-5
 RL: PRP (Properties)
 (unclaimed protein sequence; method of making mammalian kringle 5 peptide fragments with angiogenesis inhibitory effect by elastase proteolytic cleavage of plasminogen)

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; WO 9204450 1992 HCAPLUS
- (2) Anon; WO 9529242 1995 HCAPLUS
- (3) Anon; WO 9723500 1997 HCAPLUS
- (4) Anon; SCRIP 1996, V2120, P21
- (5) Cao; US 5854221 1998 HCAPLUS
- (6) Fidler, I; Cell 1994, V79, P185 HCAPLUS
- (7) Folkman, J; Journ of Biological Chemistry 1992, V267(16), P10931 HCAPLUS
- (8) Folkman, J; Science 1987, V235, P442 HCAPLUS
- (9) Folkman, J; The New England Journal of Medicine 1995, V333(26), P1757 MEDLINE
- (10) Gasparini, G; Journ of Clinical Oncology 1995, V13(3), P765 MEDLINE
- (11) Halperin; US 5512591 1996 HCAPLUS
- (12) Kolberg, R; Journal of NIH Research 1994, V8, P31
- (13) McCance, S; Journal of Biological Chemistry 1994, V269, P32405 HCAPLUS
- (14) Menhart, N; Biochemistry 1993, V32, P8799 HCAPLUS
- (15) Novokhatny, V; J Mol Biol 1984, V179, P215 MEDLINE
- (16) O'Reilly, M; Cell 1994, V79, P315 HCAPLUS
- (17) Reich; US 5407673 1995 HCAPLUS
- (18) Sottrup-Jensen, L; Progess in Chemical Fibrinolysis and Thrombolysis 1978, V3, P191 HCAPLUS
- (19) Teicher, B; Breast Cancer Research and Treatment 1995, V36, P227 HCAPLUS
- (20) Teicher, B; Cancer Chemother Pharmacol 1993, V33, P229 HCAPLUS
- (21) Teicher, B; Cancer Research 1992, V52, P6702 HCAPLUS
- (22) Teicher, B; Int J Cancer 1994, V57, P920 HCAPLUS
- (23) Teicher, B; Int J Cancer 1995, V61, P732 HCAPLUS
- (24) Teicher, B; Oncology Research 1995, V7(5), P237 HCAPLUS
- (25) Teicher, B; Radiation Oncology Investigations 1995, V2, P269
- (26) Thewes, T; Database Medline 1987
- (27) Thewest, T; Journal of Biological Chemistry 1990, V265(7), P3906

- (28) Varadi, A; Biochemical and biophysical Research Communications 1981, V103, P97 HCPLUS
 (29) Weidner, N; The New England Journal of Medicine 1991, V324(1), P1 MEDLINE

L36 ANSWER 6 OF 13 HCPLUS COPYRIGHT 2005 ACS on STN
 AN 1999:764061 HCPLUS
 DN 132:12510
 ED Entered STN: 03 Dec 1999
 TI Preparation of peptides as anti-angiogenic drugs to treat cancer, arthritis and retinopathy
 IN Kawai, Megumi; Henkin, Jack; Sheppard, George S.; Craig, Richard A.
 PA Abbott Laboratories, USA
 SO PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07K005-11

ICS C07K005-065

CC 34-3 (Amino Acids, Peptides, and Proteins)
 Section cross-reference(s): 1

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9961466	A1	19991202	WO 1999-US11308	19990521
	W: CA, JP, MX RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2332772	AA	19991202	CA 1999-2332772	19990521
	EP 1077995	A1	20010228	EP 1999-925742	19990521
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
	JP 2002516337	T2	20020604	JP 2000-550870	19990521
PRAI	US 1998-83550	A	19980522		
	WO 1999-US11308	W	19990521		

CLASS:

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9961466	ICM	C07K005-11
	ICS	C07K005-065
WO 9961466	ECLA	C07K005/06A2+C; C07K005/10B

AB Peptides WNR1CR2R3CRARBNXCR4R5CRCRDNYCR6R7CRERFNZCR8R9CRGRHR10 [RAR_B, RCRD, RERF, or RGRH = H or :O; W, X, Y, Z = H, alkyl; R1 = H, protective group; R2, R3 = H, aminoalkyl; R4, R5 = H, alkyl, cycloalkyl; R6, R7 = H, alkyl, arylalkyl; R8, R9 = H, alkyl, carboxy- or carbalkoxyalkyl; R10 = OH, (un)substituted alkoxy, cycloalkoxy, NH₂, (un)substituted alkylamino, cycloalkylamino] were prepared for treating pathol. states which arise from or are exacerbated by angiogenesis. Thus, (2S)-2-[(2S)-2-[(2S)-2-[(2S)-2-(acetylamino)-6-aminoxyhexanoyl]amino]-4-methylpentanoyl]methylamino]-3-phenylpropanoyl]amino]butanedioic acid was prepared and showed 83% inhibition at 10 NM against human microvascular endothelial cell migration.

ST peptide prepn angiogenesis inhibitor; antitumor treatment peptide prepn; antiarthritic peptide prepn; retinopathy treatment peptide prepn

IT Angiogenesis inhibitors

Antiarthritics

Antitumor agents

(preparation of peptides as anti-angiogenic drugs to treat cancer, arthritis and retinopathy)

IT Peptides, preparation

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of peptides as anti-angiogenic drugs to treat cancer, arthritis and retinopathy)

IT Eye, disease
 (retinopathy; preparation of peptides as anti-angiogenic drugs to treat cancer, arthritis and retinopathy)

IT 251555-82-5P 251555-83-6P 251555-84-7P
 251555-85-8P 251555-86-9P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of peptides as anti-angiogenic drugs to treat cancer, arthritis and retinopathy)

IT 251555-87-0P 251555-88-1P 251555-89-2P 251555-90-5P
 251555-91-6P 251555-92-7P 251555-93-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of peptides as anti-angiogenic drugs to treat cancer, arthritis and retinopathy)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Abbott Lab; WO 9741824 A 1997 HCPLUS
- (2) Childrens Medical Center; WO 9529242 A 1995 HCPLUS
- (3) Eyal, J; US 5654277 A 1997 HCPLUS
- (4) Grace W R & Co; EP 0514721 A 1992 HCPLUS
- (5) Weinstein, B; Chemistry and Biochemistry of Amino Acids Peptides and Proteins 1983, V7, P266

L36 ANSWER 7 OF 13 HCPLUS COPYRIGHT 2005 ACS on STN

AN 1999:718961 HCPLUS

DN 131:346531

ED Entered STN: 11 Nov 1999

TI antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis

IN Davidson, Donald J.

PA Abbott Laboratories, USA

SO U.S., 40 pp., Cont.-in-part of U.S. 5,801,146.

CODEN: USXXAM

DT Patent

LA English

IC ICM A61K038-00

ICS A61K038-04

NCL 514012000

CC 1-8 (Pharmacology)

Section cross-reference(s): 14

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5981484	A	19991109	US 1997-832087	19970403 <--
	US 5801146	A	19980901	US 1996-643219	19960503 <--
	EP 910571	A2	19990428	EP 1997-925478	19970505 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
	CN 1223690	A	19990721	CN 1997-195989	19970505 <--
	BR 9708911	A	19990803	BR 1997-8911	19970505 <--
	US 6057122	A	20000502	US 1997-851350	19970505 <--
	NZ 332319	A	20000929	NZ 1997-332319	19970505 <--
	JP 2002502235	T2	20020122	JP 1997-540162	19970505 <--
	US 6699838	B1	20040302	US 1997-924287	19970905 <--
	US 5972896	A	19991026	US 1998-131995	19980811 <--
	US 6251867	B1	20010626	US 1998-132154	19980811 <--
	KR 2000010739	A	20000225	KR 1998-708851	19981103 <--
	US 2004138127	A1	20040715	US 2004-753646	20040108 <--
PRAI	US 1996-643219	A2	19960503	<--	
	US 1997-832087	A	19970403		
	US 1997-851350	A2	19970505		
	WO 1997-US7700	W	19970505		

Appl. No.

US 1997-924287

A1 19970905

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
------------	-------	------------------------------------

US 5981484	ICM	A61K038-00	<--
	ICS	A61K038-04	<--
	NCL	514012000	<--
US 5981484	ECLA	C12N009/68	<--
US 5801146	ECLA	C12N009/68	<--
US 6057122	ECLA	C12N009/68	<--
US 6699838	ECLA	C12N009/68	<--
US 5972896	ECLA	C12N009/68	<--
US 6251867	ECLA	C12N009/68	<--
US 2004138127	ECLA	C12N009/68	<--

AB Mammalian kringle 5 peptide fragments that can inhibit angiogenesis are described for treating angiogenic diseases. Kringle 5 peptide fragments were manufactured either by proteolytic cleavage of plasminogens from various species or synthesized by standard FMOC chemical methods. The inhibition of stimulated proliferation and migration

by kringle 5 peptide fragments was both potent and specific to the bovine endothelial cells but not normal or tumor cells. Methods and compns. for inhibiting angiogenic diseases are also proposed.

ST kringle 5 peptide plasminogen angiogenesis treatment; antiangiogenic kringle 5 peptide plasminogen

IT Angiogenesis inhibitors

(antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis)

IT Antiarthritis

Antitumor agents

(antiangiogenic plasminogen kringle 5 domain peptides as, for inhibition of angiogenesis; antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis)

IT Eye, disease

(diabetic retinopathy, treatment of; antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis)

IT Blood vessel

(endothelium, proliferation inhibition by human kringle 5 peptide; antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis)

IT Protein sequences

(for plasminogen of human; antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis)

IT Blood vessel, neoplasm

Blood vessel, neoplasm
(hemangioma, inhibitors; antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis)

IT Antitumor agents

(hemangioma; antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis)

IT Protein motifs

(kringles, fragments of, human plasminogen angiogenesis inhibitors; antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis)

IT Antitumor agents

(lymphoma; antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis)

IT Eye, disease

(macula, degeneration, treatment of; antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis)

- IT Cattle
 Macaca mulatta
 Mouse
 Swine
 (plasminogen kringle 5 domain peptides of, for inhibition of angiogenesis; antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis)
- IT Antitumor agents
 (sarcoma; antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis)
- IT Psoriasis
 (treatment of; antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis)
- IT 109884-31-3D, Plasminogen (human liver clone pPLGKG protein moiety reduced), peptides 250159-78-5D, 443-543-
 Plasminogen (human), peptides 250159-79-6D, 449-543-
 Plasminogen (human), peptides 250159-80-9D, 454-543-
 Plasminogen (human), peptides 250159-81-0D, 443-546-
 Plasminogen (human), peptides 250159-83-2D, 449-546-
 Plasminogen (human), peptides 250159-84-3D, 454-546-
 Plasminogen (human), peptides
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (amino acid sequence; antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis)
- IT 9001-91-6, Plasminogen
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (antiangiogenic peptides of; antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis)
- IT 199664-76-1P 199664-77-2P 199664-80-7P 199664-81-8P
 199664-82-9P 199664-83-0P 199664-84-1P
 199664-85-2P 199664-86-3P 199664-87-4P
 199664-88-5P 199664-89-6P 199664-90-9P
 199664-91-0P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (synthesis of, antiangiogenic kringle 5 peptide; antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis)
- IT 140088-37-5
 RL: PRP (Properties)
 (unclaimed nucleotide sequence; antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis)
- IT 250163-83-8 250163-84-9 250163-85-0 250163-86-1
 RL: PRP (Properties)
 (unclaimed protein sequence; antiangiogenic kringle 5 peptide fragments of plasminogen for therapeutic control of angiogenesis)
- RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Anon; WO 9204450 1992 HCPLUS
 (2) Anon; WO 9529242 1995 HCPLUS
 (3) Anon; WO 9723500 1997 HCPLUS

- (4) Anon; Scrip 1996, V2120, P21
 (5) Cao; US 5854221 1998 HCAPLUS
 (6) Fidler, I; Cell 1994, V79, P185 HCAPLUS
 (7) Folkman, J; Journ of Biological Chemistry 1992, V267(16), P10931 HCAPLUS
 (8) Folkman, J; Science 1987, V235, P442 HCAPLUS
 (9) Folkman, J; The New England Journal of Medicine 1995, V333(26), P1757
 MEDLINE
 (10) Gasparini, G; Journ of Clinical Oncology 1995, V13(3), P765 MEDLINE
 (11) Halperin; US 5512591 1996 HCAPLUS
 (12) Kolberg, R; Journal of NIH Research 1994, V8, P31
 (13) McCance, S; Journal of Biological Chemistry 1994, V269, P32405 HCAPLUS
 (14) Menhart, N; Biochemistry 1993, V32, P8799 HCAPLUS
 (15) Novokhatny, V; J Mol Biol 1984, V179, P215 MEDLINE
 (16) O'Reilly, M; Cell 1994, V79, P315 HCAPLUS
 (17) Sottrup-Jensen, L; Progress in Chemical Fibrinolysis and Thrombolysis
 1978, V3, P191 HCAPLUS
 (18) Teicher, B; Breast Cancer Research and Treatment 1995, V36, P227 HCAPLUS
 (19) Teicher, B; Cancer Chemother Pharmacol 1993, V33, P299
 (20) Teicher, B; Cancer Research 1992, V52, P6702 HCAPLUS
 (21) Teicher, B; Int J Cancer 1994, V57, P920 HCAPLUS
 (22) Teicher, B; Int J Cancer 1995, V61, P732 HCAPLUS
 (23) Teicher, B; Oncology Research 1995, V7(5), P237 HCAPLUS
 (24) Teicher, B; Radiation Oncology Investigations 1995, V2, P269
 (25) Thewes, T; Database Medline 1987
 (26) Thewes, T; Journal of Biological Chemistry 1990, V265(7), P3906
 (27) Varadi, A; Biochemical and biophysical Research Communications 1981, V103,
 P97 HCAPLUS
 (28) Weidner, N; The New England Journal of Medicine 1991, V324(1), P1 MEDLINE

L36 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1997:740418 HCAPLUS

DN 128:43873

ED Entered STN: 24 Nov 1997

TI Antiangiogenic peptides, polypeptides containing them, and
 methods for inhibiting angiogenesis

IN Davidson, Donald J.; Wang, Jieyi; Gubbins, Earl
 J.

PA Abbott Laboratories, USA

SO PCT Int. Appl., 78 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K

CC 1-12 (Pharmacology)

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9741824	A2	19971113	WO 1997-US7700	19970505 <--
	WO 9741824	A3	19980108		
	W: AU, BR, CA, CN, CZ, HU, IL, JP, KR, MX, NZ RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5801146	A	19980901	US 1996-643219	19960503 <--
	CA 2253243	AA	19971113	CA 1997-2253243	19970505 <--
	AU 9730606	A1	19971126	AU 1997-30606	19970505 <--
	AU 724077	B2	20000914		
	EP 910571	A2	19990428	EP 1997-925478	19970505 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
	CN 1223690	A	19990721	CN 1997-195989	19970505 <--
	BR 9708911	A	19990803	BR 1997-8911	19970505 <--
	NZ 332319	A	20000929	NZ 1997-332319	19970505 <--
	JP 2002502235	T2	20020122	JP 1997-540162	19970505 <--
PRAI	US 1996-643219	A	19960503	<--	
	US 1997-832087	A	19970403		

WO 1997-US7700

W 19970505

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
WO 9741824	ICM	A61K	
WO 9741824	ECLA	C12N009/68	<--
US 5801146	ECLA	C12N009/68	<--
AB	Mammalian kringle 5 fragments and kringle 5 fusion proteins are disclosed as compds. for treating angiogenic diseases. Methods and compns. for inhibiting angiogenic diseases are also disclosed.		
ST	kringle 5 peptide antiangiogenesis sequence		
IT	Angiogenic factors		
	Angiogenic factors		
	Growth inhibitors, animal		
	Growth inhibitors, animal		
RL:	PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (angiogenic growth-inhibiting factors; antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)		
IT	Angiogenesis inhibitors		
	Antiarthritics		
	Antitumor agents		
	Escherichia coli		
	Gene therapy		
	Genetic vectors		
	Komagataella pastoris		
	Protein sequences		
	RNA sequences		
	cDNA sequences (antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)		
IT	Fusion proteins (chimeric proteins)		
RL:	BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)		
IT	Antitumor agents		
	(carcinoma; antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)		
IT	Eye, disease		
	(diabetic retinopathy, inhibitors; antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)		
IT	Blood vessel		
	(endothelium, migration of cells of; antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)		
IT	Blood vessel, neoplasm		
	(hemangioma, inhibitors; antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)		
IT	Psoriasis		
	(inhibitors; antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)		
IT	Cattle		
	Macaca mulatta		
	Mouse		
	Swine		
	(kringle 5 fusion protein of; antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)		
IT	Protein motifs		

(kringles; antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)

IT Antitumor agents
 (lymphoma; antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)

IT Eye, disease
 (macula, degeneration, inhibitors; antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)

IT Antitumor agents
 (metastasis; antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)

IT Cell migration
 (of vascular endothelium; antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)

IT Antitumor agents
 (sarcoma; antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)

IT 109884-31-3, Plasminogen (human liver clone pPLGKG protein moiety reduced)
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
 (amino acid sequence; antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)

IT 29022-11-5P 35661-39-3P 35661-40-6P 71989-26-9P 71989-28-1P
 119831-72-0P 132388-59-1P 199664-76-1P 199664-77-2P 199664-80-7P
 199664-81-8P 199664-82-9P 199664-83-0P
 199664-84-1P 199664-85-2P 199664-86-3P
 199664-87-4P 199664-88-5P 199664-89-6P
 199664-90-9P 199664-91-0P
 RL: PNU (Preparation, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)

IT 35661-60-0 35737-15-6 68858-20-8 71989-14-5 71989-18-9
 71989-23-6 71989-31-6 71989-33-8 71989-35-0 109425-51-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)

IT 9001-91-6, Plasminogen
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (elastase treatment of; antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)

IT 56-84-8, L-Aspartic acid, biological studies 56-87-1, Lysine, biological studies 60-18-4, Tyrosine, biological studies 61-90-5, L-Leucine, biological studies 63-91-2, Phenylalanine, biological studies 74-79-3, L-Arginine, biological studies
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
 (kringle peptide containing; antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)

IT 9004-06-2, Elastase
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (plasminogen treatment with; antiangiogenic peptides, polypeptides containing them, and methods for inhibiting angiogenesis)

DN 127:304391
 ED Entered STN: 18 Sep 1997
 TI Kringle 5 of plasminogen is a novel inhibitor of endothelial cell growth
 AU Cao, Yihai; Chen, Andrew; An, Seong Soo A.; Ji, Richard-Weidong; Davidson, Don; Cao, Yumei; Llinas, Miguel
 CS Laboratory of Angiogenesis Research, Department of Cell and Molecular Biology, Karolinska Institute, Stockholm, S-17177, Swed.
 SO Journal of Biological Chemistry (1997), 272(36), 22924-22928
 CODEN: JBCHA3; ISSN: 0021-9258
 PB American Society for Biochemistry and Molecular Biology
 DT Journal
 LA English
 CC 6-3 (General Biochemistry)
 Section cross-reference(s): 13
 AB Angiostatin is a potent angiogenesis inhibitor which has been identified as an internal fragment of plasminogen that includes its first four kringle modules. We have recently demonstrated that the anti-endothelial cell proliferative activity of angiostatin is also displayed by the first three kringle structures of plasminogen and marginally so by kringle 4 (Cao, Y., Ji, R.-W., Davidson, D., Schaller, J., Marti, D., Sohndel, S., McCance, S. G., O'Reilly, M. S., Llinas, M., and Folkman, J. (1996) J. Biol. Chemical 271, 29461-29467). We now report that the kringle 5 fragment of human plasminogen is a specific inhibitor for endothelial cell proliferation. Kringle 5 obtained as a proteolytic fragment of human plasminogen displays potent inhibitory effect on bovine capillary endothelial cells with a half-maximal concentration (ED50) of approx. 50 nM. Thus, kringle 5 would appear to be more potent than angiostatin on inhibition of basic fibroblast growth factor-stimulated capillary endothelial cell proliferation. Appropriately folded recombinant mouse kringle 5 protein, expressed in Escherichia coli, exhibits a comparable inhibitory effect as the proteolytic kringle 5 fragment. Thus, kringle 5 domain of human plasminogen is a novel endothelial inhibitor that is sufficiently potent to block the growth factor-stimulated endothelial cell growth.
 ST kringle domain plasminogen endothelial cell growth
 IT Blood vessel
 (endothelium; kringle 5 of plasminogen is a novel inhibitor of endothelial cell growth)
 IT Protein sequences
 (kringle 5 of plasminogen is a novel inhibitor of endothelial cell growth)
 IT Protein motifs
 (kringles; kringle 5 of plasminogen is a novel inhibitor of endothelial cell growth)
 IT 196417-08-0
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
 (amino acid sequence; kringle 5 of plasminogen is a novel inhibitor of endothelial cell growth)
 IT 9001-91-6, Plasminogen
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (kringle 5 of plasminogen is a novel inhibitor of endothelial cell growth)
 RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Brooks, P; Cell 1994, V79, P1157 HCPLUS
 (2) Cao, Y; J Biol Chem 1996, V271, P29461 MEDLINE
 (3) Cao, Y; J Clin Invest 1996, V98, P2507 HCPLUS
 (4) Cao, Y; J Exp Med 1995, V182, P2069 HCPLUS
 (5) Cao, Y; Technique 1990, V2, P109 HCPLUS

- (6) Castellino, F; Methods Enzymol 1981, V80, P365 HCAPLUS
 (7) Chen, C; Cancer Res 1995, V55, P4230 HCAPLUS
 (8) Clapp, C; Endocrinology 1993, V133, P1292 HCAPLUS
 (9) Cox, M; Chem Phys Lipids 1994, V67, P43
 (10) Dameron, K; Science 1994, V265, P1582 HCAPLUS
 (11) Deutsch, D; Science 1970, V170, P1095 HCAPLUS
 (12) Dong, Z; Cell 1997, V88, P801 HCAPLUS
 (13) Ferrara, N; Endocr Rev 1992, V13, P18 HCAPLUS
 (14) Folkman, J; Cell 1996, V87, P1153 HCAPLUS
 (15) Folkman, J; J Biol Chem 1992, V267, P10931 HCAPLUS
 (16) Folkman, J; N Engl J Med 1995, V333, P1757 MEDLINE
 (17) Folkman, J; Nat Med 1995, V1, P27 HCAPLUS
 (18) Folkman, J; Proc Natl Acad Sci U S A 1979, V76, P5217 MEDLINE
 (19) Friedlander, M; Science 1995, V270, P1500 HCAPLUS
 (20) Gately, S; Cancer Res 1996, V56, P4887 HCAPLUS
 (21) Good, D; Proc Natl Acad Sci U S A 1990, V87, P6624 HCAPLUS
 (22) Grant, D; Cell 1989, V58, P933 HCAPLUS
 (23) Gupta, S; Proc Natl Acad Sci U S A 1995, V92, P7799 HCAPLUS
 (24) Hanahan, D; Cell 1996, V86, P353 HCAPLUS
 (25) Hartree, E; Anal Biochem 1972, V48, P422 HCAPLUS
 (26) Homandberg, G; Am J Pathol 1985, V120, P327 HCAPLUS
 (27) Hori, A; Cancer Res 1991, V51, P6180 HCAPLUS
 (28) Kandel, J; Cell 1991, V66, P1095 HCAPLUS
 (29) Menhart, N; Biochemistry 1993, V32, P8799 HCAPLUS
 (30) Mulichak, A; Biochemistry 1991, V30, P10576 HCAPLUS
 (31) Nguyen, M; J Natl Cancer Inst 1994, V86, P356 MEDLINE
 (32) O'Reilly, M; Cell 1994, V79, P315 HCAPLUS
 (33) O'Reilly, M; Cell 1997, V88, P1
 (34) O'Reilly, M; Nat Med 1996, V2, P689 HCAPLUS
 (35) Sage, E; J Cell Biochem 1995, V57, P127 HCAPLUS
 (36) Senger, D; Cancer Res 1990, V50, P1774 HCAPLUS
 (37) Sottrup-Jensen, L; Prog Chem Fibrinolysis Thrombolysis 1978, V3, P191
 HCAPLUS
 (38) Thewes, T; Biochem Biophys Acta 1987, V912, P254 HCAPLUS
 (39) Tolsma, S; J Cell Biol 1993, V122, P497 HCAPLUS

L36 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1997:48745 HCAPLUS

DN 126:54861

ED Entered STN: 23 Jan 1997

TI Angiostatin krinkle region-containing fragment sequences, aggregate angiostatin, and tumor or angiogenic-mediated disease treatment

IN Folkman, M. Judah; O'Reilly, Michael S.; Cao, Yihai; Sim, Kim Lee; Lin, Jie

PA Children's Medical Center Corporation, USA

SO PCT Int. Appl., 212 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C12N

CC 1-6 (Pharmacology)

Section cross-reference(s): 6, 13

FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9635774	A2	19961114	WO 1996-US5856	19960426 <--
	WO 9635774	A3	19970213		
	W:	AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI			
	RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML			

US 5885795	A	19990323	US 1995-429743	19950426 <--
US 5861372	A	19990119	US 1996-605598	19960222 <--
US 5837682	A	19981117	US 1996-612788	19960308 <--
AU 9655795	A1	19961129	AU 1996-55795	19960426 <--
AU 709633	B2	19990902		
EP 824546	A2	19980225	EP 1996-913208	19960426 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI				
JP 11508228	T2	19990721	JP 1996-534104	19960426 <--
BR 9608326	A	20000308	BR 1996-8326	19960426 <--
NZ 307044	A	20020301	NZ 1996-307044	19960426 <--
NO 9704943	A	19971218	NO 1997-4943	19971024 <--
PRAI US 1995-429743	A	19950426	<--	
US 1996-605598	A	19960222	<--	
US 1996-612788	A	19960308	<--	
US 1994-248629	A2	19940426	<--	
US 1994-326785	A2	19941020	<--	
WO 1996-US5856	W	19960426	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
------------	-------	------------------------------------

-----	-----	-----	
WO 9635774	ICM	C12N	
WO 9635774	ECLA	C12N009/68	<--
US 5885795	ECLA	C12N009/68; G01N033/574	<--
US 5861372	ECLA	C12N009/68	<--
US 5837682	ECLA	C12N009/68	<--

AB Fragments and an aggregate form of an endothelial cell proliferation inhibitor and methods of use therefor are provided. The endothelial proliferation inhibitor is a protein from plasminogen, or more specifically is an angiostatin fragment. The angiostatin fragments generally correspond to krinkle structures occurring within the endothelial cell proliferation inhibitor. Angiostatin is also prepared in a aggregate form. The endothelial cell inhibiting activity of the angiostatin fragments and the aggregate angiostatin provide a means for inhibiting angiogenesis of tumors and for treating angiogenic-mediated diseases.

ST angiostatin krinkle region sequence disease treatment;
angiogenesis inhibitor angiostatin krinkle region sequence;
aggregate angiostatin krinkle region disease treatment; tumor
angiogenesis inhibition angiostatin krinkle region;
plasminogen angiostatin fragment sequence disease treatment

IT Antitumor agents

Cattle

Macaca mulatta

Mouse

Protein sequences

Swine

(angiostatin krinkle region-containing fragment sequences, aggregate angiostatin, and tumor or angiogenic-mediated disease treatment)

IT Apoptosis

(angiostatin-stimulated; angiostatin krinkle region-containing fragment sequences, aggregate angiostatin, and tumor or angiogenic-mediated disease treatment)

IT Lung, neoplasm

(carcinoma, treatment; angiostatin krinkle region-containing fragment sequences, aggregate angiostatin, and tumor or angiogenic-mediated disease treatment)

IT Escherichia coli

Komagataella pastoris

(expression host; angiostatin krinkle region-containing fragment sequences, aggregate angiostatin, and tumor or angiogenic-mediated disease treatment)

- IT Lung, neoplasm
 (inhibitors; angiostatin krinkle region-containing fragment sequences, aggregate angiostatin, and tumor or angiogenic-mediated disease treatment)
- IT Antitumor agents
 (lung; angiostatin krinkle region-containing fragment sequences, aggregate angiostatin, and tumor or angiogenic-mediated disease treatment)
- IT 122071-87-8, 84-162-Plasminogen (human liver clone pPLGKG protein moiety reduced) 185074-38-8 185074-39-9
 185074-40-2 185074-41-3 185074-42-4 185074-43-5
 185074-44-6 185074-45-7 185074-46-8 185074-47-9 185074-48-0
 185074-49-1 185074-50-4 185074-51-5 185074-52-6 185074-53-7
 185074-54-8 185074-55-9 185074-56-0 185074-57-1 185074-58-2
 185074-59-3 185074-60-6 185074-61-7 185074-62-8 185074-63-9
 185074-64-0 185074-65-1 185074-66-2 185074-67-3 185074-68-4
 185074-69-5 185074-70-8 185074-71-9 185074-72-0
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (amino acid sequence; angiostatin krinkle region-containing fragment sequences, aggregate angiostatin, and tumor or angiogenic-mediated disease treatment)
- IT 9001-91-6, Plasminogen 86090-08-6, Angiostatin 136653-77-5, Plasminogen (mouse) 172642-29-4, Angiostatin (mouse) 172642-30-7, Angiostatin (human) 172642-31-8, Angiostatin (Macaca mulatta) 172642-32-9, Angiostatin (pig) 172642-33-0, Angiostatin (ox) RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (angiostatin krinkle region-containing fragment sequences, aggregate angiostatin, and tumor or angiogenic-mediated disease treatment)

L36 ANSWER 11 OF 13 HCPLUS COPYRIGHT 2005 ACS on STN
 AN 1995:842649 HCPLUS
 DN 123:246823
 ED Entered STN: 10 Oct 1995
 TI Hydrophilic signal oligopeptides and methods of therapeutic use
 IN Rath, Matthias
 PA USA
 SO PCT Int. Appl., 87 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM G01N033-531
 CC 1-7 (Pharmacology)

Section cross-reference(s): 6, 7, 15

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9519568	A1	19950720	WO 1995-US575	19950112 <--
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
	RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9516810	A1	19950801	AU 1995-16810	19950112 <--
	EP 744027	A1	19961127	EP 1995-908522	19950112 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	AU 9881834	A1	19981008	AU 1998-81834	19980824 <--
	AU 735298	B2	20010705		
	US 2005014138	A1	20050120	US 2004-930300	20040830 <--

PRAI US 1994-182248	A	19940114	<--
WO 1995-US575	W	19950112	<--
US 1996-704499	B2	19960828	<--
US 1999-232186	B1	19990114	
US 2001-881976	B3	20010615	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
------------	-------	------------------------------------

-----	-----	-----
WO 9519568	ICM	G01N033-531

AB The instant invention is directed to a method of identifying signal oligopeptides through the use of algorithms, the use of signal oligopeptides as vaccines and as immunogens to produce antibodies. Like the human language, the protein code consists of letters, words, and sentences. The letters (amino acids) and sentences (complete 3-dimensional proteins) have been known previously, but the present discovery identifies the protein words or verbs. These protein verbs are represented by signal oligopeptides which are localized on the surface of the protein and are represented by the hydrophilicity maxima of the protein. These signal oligopeptides are enriched in charged amino acids in a versatile arrangement with neutral spacer amino acids. The sp. signal character of these oligopeptides is determined by a characteristic combination of conformation and charge within the signal sequence. As in human language, the whole sentence (complete 3-dimensional protein) is needed to determine the sp. and complete action of any given protein. In human language eliminating or changing the verb of a sentence renders the whole sentence meaningless. Similarly, blocking the protein code verbs (signal oligopeptides) can be therapeutically used to block the undesired action or interaction of an entire protein. The discovery of the protein code provides the rationale for deciphering the communication code of diseases. Infectious diseases, cancer, cardiovascular and other diseases develop by means of one or more pathogenicity-mediating protein. Blocking the signal oligopeptides of these proteins (e.g., with antibodies) allows the sp. therapeutic interception of a pathol. communication and thereby blocks disease propagation. Some 360 oligopeptides of signal significance are presented.

ST hydrophilic signal oligopeptide code sequence therapy; antibody signal oligopeptide sequence therapy

IT Proteins, specific or class

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(ACTH-releasing factor-binding, signal fragments; hydrophilic signal oligopeptides and methods of therapeutic use)

IT Schistosoma

(elastase precursor of; hydrophilic signal oligopeptides and methods of therapeutic use)

IT Algorithm

(for signal peptide searching; hydrophilic signal oligopeptides and methods of therapeutic use)

IT Antibodies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(hydrophilic signal oligopeptide-binding; hydrophilic signal oligopeptides and methods of therapeutic use)

IT Acquired immune deficiency syndrome

Hydrophilicity

Therapeutics

(hydrophilic signal oligopeptides and methods of therapeutic use)

IT Treponema pallidum

(membrane protein TMPA of, signal fragments; hydrophilic signal oligopeptides and methods of therapeutic use)

IT Proteins, properties

RL: PRP (Properties)

(protein functional code; hydrophilic signal oligopeptides and methods

of therapeutic use)

IT Hepatitis
 (δ antigen; hydrophilic signal oligopeptides and methods of therapeutic use)

IT Mental disorder
 (Alzheimer's disease, amyloid A4; hydrophilic signal oligopeptides and methods of therapeutic use)

IT Glycoproteins, specific or class
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (B, of herpes virus 1, signal fragments; hydrophilic signal oligopeptides and methods of therapeutic use)

IT Lipoproteins
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (Lp(a), apo-, human and rhesus, signal fragments; hydrophilic signal oligopeptides and methods of therapeutic use)

IT Antigens
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (TmpA (treponemal membrane protein A), of Treponema pallidum, signal fragments; hydrophilic signal oligopeptides and methods of therapeutic use)

IT Proteins, specific or class
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (amyloid A4, Alzheimer, signal fragments; hydrophilic signal oligopeptides and methods of therapeutic use)

IT Lipoproteins
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (apo-, E, signal fragments; hydrophilic signal oligopeptides and methods of therapeutic use)

IT Phosphoproteins
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (gene rev, signal fragments; hydrophilic signal oligopeptides and methods of therapeutic use)

IT Virus, animal
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (herpes simplex 1, signal fragments; hydrophilic signal oligopeptides and methods of therapeutic use)

IT Virus, animal
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (herpes simplex 2, glycoprotein B of, signal fragments; hydrophilic signal oligopeptides and methods of therapeutic use)

IT Peptides, biological studies
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (oligo-, hydrophilic signal oligopeptides and methods of therapeutic use)

IT 9001-12-1, Collagenase
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP

(Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (fibroblast MMP1, signal fragments; hydrophilic signal oligopeptides and methods of therapeutic use)

IT	99713-67-4	168690-08-2	168690-09-3	168690-10-6	168690-11-7
	168690-12-8	168690-13-9	168690-14-0	168690-15-1	168690-16-2
	168690-17-3	168690-18-4	168690-19-5	168690-20-8	168690-21-9
	168690-22-0	168690-23-1	168690-24-2	168690-25-3	168690-26-4
	168690-27-5	168690-28-6	168690-29-7	168690-30-0	168690-31-1
	168690-32-2	168690-33-3	168690-34-4	168690-35-5	168690-36-6
	168690-37-7	168690-38-8	168690-39-9	168690-40-2	168690-41-3
	168690-42-4	168690-43-5	168690-44-6	168690-45-7	168690-46-8
	168690-47-9	168690-48-0	168690-49-1	168690-50-4	168690-51-5
	168690-52-6	168690-53-7	168690-54-8	168690-55-9	168690-56-0
	168690-57-1	168690-58-2	168690-59-3	168690-60-6	168690-61-7
	168690-62-8	168690-63-9	168690-64-0	168690-65-1	168690-66-2
	168690-67-3	168690-68-4	168690-69-5	168690-70-8	168690-71-9
	168690-72-0	168690-73-1	168690-74-2	168690-75-3	168690-76-4
	168690-77-5	168690-78-6	168690-79-7	168690-80-0	168690-81-1
	168690-82-2	168690-83-3	168690-84-4	168690-85-5	168690-86-6
	168690-87-7	168690-88-8	168690-89-9	168690-90-2	168690-91-3
	168690-92-4	168690-93-5	168690-94-6	168690-95-7	168690-96-8
	168690-97-9	168690-98-0	168690-99-1	168691-00-7	168691-01-8
	168691-02-9	168691-03-0	168691-04-1	168691-05-2	168691-06-3
	168691-07-4	168691-08-5	168691-09-6	168691-10-9	168691-11-0
	168691-12-1	168691-13-2	168691-14-3	168691-15-4	168691-16-5
	168691-17-6	168691-18-7	168691-19-8	168691-20-1	168691-21-2
	168691-22-3	168691-23-4	168691-24-5	168691-25-6	168691-26-7
	168691-27-8	168691-28-9	168691-29-0	168691-30-3	168691-31-4
	168691-32-5	168691-33-6	168691-34-7	168691-35-8	168691-36-9
	168691-37-0	168691-38-1	168691-39-2	168691-40-5	168691-41-6
	168691-42-7	168691-43-8	168691-44-9	168691-45-0	168691-46-1
	168691-47-2	168691-48-3,	1-8-Gastrin-14	I (human)	168691-49-4
	168691-50-7	168691-51-8	168691-52-9	168691-53-0	168691-54-1
	168691-55-2	168691-56-3	168691-57-4	168691-58-5	168691-59-6
	168691-60-9	168691-61-0	168691-62-1	168691-63-2	168691-64-3
	168691-65-4	168691-66-5	168691-67-6	168691-68-7	168691-69-8
	168691-70-1	168691-71-2	168691-72-3	168691-73-4	168691-74-5
	168691-75-6	168691-76-7	168691-77-8	168691-78-9	168691-79-0
	168691-80-3	168691-81-4	168691-82-5	168691-83-6	168691-84-7
	168691-85-8	168691-86-9	168691-87-0	168691-88-1	168691-89-2
	168691-90-5	168691-91-6	168691-92-7	168691-93-8	168691-94-9
	168691-95-0	168691-96-1	168691-97-2	168691-98-3	168691-99-4
	168692-00-0	168692-01-1	168692-02-2	168692-03-3	168692-04-4
	168692-05-5	168692-06-6	168692-07-7	168692-08-8	168692-09-9
	168692-10-2	168692-11-3	168692-12-4	168692-13-5	168692-14-6
	168692-15-7	168692-16-8	168692-17-9	168692-18-0	168692-19-1
	168692-20-4	168692-21-5	168692-22-6	168692-23-7	168692-24-8
	168692-25-9	168692-26-0	168692-27-1	168692-28-2	168692-29-3
	168692-30-6	168692-31-7	168692-32-8	168692-33-9	168692-34-0
	168692-35-1	168692-36-2	168692-37-3	168692-38-4	168692-39-5
	168692-40-8				

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(hydrophilic signal oligopeptides and methods of therapeutic use)

IT	168692-41-9	168692-42-0	168692-43-1	168692-44-2	168692-45-3
	168692-46-4	168692-47-5	168692-48-6	168692-49-7	168692-50-0
	168692-51-1	168692-52-2	168692-53-3	168692-54-4	168692-55-5
	168692-56-6	168692-57-7	168692-58-8	168692-59-9	168692-60-2
	168692-61-3	168692-62-4	168692-63-5	168692-64-6	168692-65-7
	168692-66-8	168692-67-9	168692-68-0	168692-69-1	168692-70-4
	168692-71-5	168692-72-6	168692-73-7	168692-74-8	168692-75-9

168692-76-0 168692-77-1 168692-78-2 168692-79-3 168692-80-6
 168692-81-7 168692-82-8 168692-83-9 168692-84-0 168692-85-1
 168692-86-2 168692-87-3 168692-88-4 168692-89-5 168692-90-8
 168692-91-9 168692-92-0 168692-93-1 168692-94-2 168692-95-3
 168692-96-4 168692-97-5 168692-98-6 168692-99-7 168693-00-3
 168693-01-4 168693-02-5 168693-03-6 168693-04-7 168693-05-8
 168693-06-9 168693-07-0 168693-08-1 168693-09-2 168693-10-5
 168693-11-6 168693-12-7 168693-13-8 168693-14-9 168693-15-0
 168693-16-1 168693-17-2 168693-18-3 168693-19-4 168693-20-7
 168693-21-8 168693-22-9 168693-23-0 168693-24-1 168693-25-2
 168693-26-3 168693-27-4 168693-28-5 168693-29-6 168693-30-9
 168693-31-0 168693-32-1 168693-33-2 168693-34-3
 168693-35-4 168693-36-5 168693-37-6 168693-38-7 168693-39-8
 168693-40-1 168693-41-2 168693-42-3 168693-43-4 168693-44-5
 168693-45-6 168693-46-7 168693-47-8 168693-48-9 168693-49-0
 168693-50-3 168693-51-4 168693-52-5 168693-53-6 168693-54-7
 168693-55-8 168693-56-9 168693-57-0

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(hydrophilic signal oligopeptides and methods of therapeutic use)

IT 80965-96-4, Elastase, prepro-

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(of Schistosoma, signal fragments; hydrophilic signal oligopeptides and methods of therapeutic use)

IT 9028-35-7, Hydroxymethylglutaryl coenzyme A reductase 39364-01-7,
 Prorenin 50812-36-7, Synthetase, farnesyl pyrophosphate 75432-63-2,
 Glucagon, prepro- 81690-22-4, Preprogastrin 106602-62-4, Islet amyloid
 polypeptide 113834-12-1, Schistosomin 123774-88-9,
 Gonadotropin-releasing factor, pro- 140208-23-7, Plasminogen
 activator inhibitor 1 142243-03-6, Plasminogen activator
 inhibitor 2

RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(signal fragments; hydrophilic signal oligopeptides and methods of therapeutic use)

L36 ANSWER 12 OF 13 HCPLUS COPYRIGHT 2005 ACS on STN
 AN 1992:77826 HCPLUS

DN 116:77826

ED Entered STN: 06 Mar 1992

TI Manufacture of fusion protein containing the kringle region of plasminogen

IN Yokoo, Yoshiharu; Sugimoto, Seiji; Sato, Moriyuki; Nishi, Tatsuya; Ito, Seiga

PA Kyowa Hakko Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C12P021-02

ICS C07K003-10; C07K003-20; C07K007-10; C07K013-00

ICA C12N015-62; C12P021-06

ICI C12P021-02, C12R001-19; C07K099-00

CC 3-4 (Biochemical Genetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03219892	A2	19910927	JP 1990-13941	19900124 <--
PRAI	JP 1990-13941		19900124	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 03219892	ICM C12P021-02 ICS C07K003-10; C07K003-20; C07K007-10; C07K013-00 ICA C12N015-62; C12P021-06 ICI C12P021-02, C12R001-19; C07K099-00	
AB	Manufacture of the kringle region 1 (k1) of plasminogen and/or a heterologous protein via the expression of a chimeric gene thereof is described. K1 and the adjacent protein, e.g. the B domain of protein A domain (I) of <i>Staphylococcus aureus</i> , are linked with an amino acid/peptide linker that can be easily cleaved by a chemical/enzymic treatment for separation and purification. A histidine residue can also be introduced into the protein as chelating sites. Plasmids pPrKT1 and pPZKT1 encoding the fusion protein of k1-I and k1-I derivative, resp., for expression in <i>Escherichia coli</i> were given. Purifn, of the fusion protein with lysine-affinity chromatog. was also shown.	
ST	kringle 1 plasminogen fusion protein; protein A plasminogen kringle 1	
IT	Animal cell <i>Escherichia coli</i> (expression in, of chimeric gene for human plasminogen kringle 1 and <i>Staphylococcus aureus</i>)	
IT	Microorganism (expression in, of chimeric gene for human plasminogen kringle 1 and <i>Staphylococcus aureus</i> protein A B domain)	
IT	Plasmid and Episome (pPZKT1, chimeric gene for human plasminogen kringle 1 and <i>Staphylococcus aureus</i> protein A B domain on,)	
IT	Plasmid and Episome (pPrKT1, chimeric gene for human plasminogen kringle 1 and <i>Staphylococcus aureus</i> protein A B domain on,)	
IT	Proteins, specific or class RL: BIOL (Biological study) (A, B domain, fusion products with kringle 1 of plasminogen of, recombinant manufacture of)	
IT	91931-07-6, 212-269-Protein A (<i>Staphylococcus aureus</i> clone pAC37) 138726-05-3, 80-165- Plasminogen (human liver clone pPLGKG protein moiety reduced) RL: PRP (Properties) (amino acid sequence of, fusion protein containing)	
IT	71-00-1, Histidine, biological studies RL: BIOL (Biological study) (chelating site, in fusion protein containing plaminogen kringle 1 and B domain of protein A)	
IT	56-87-1, Lysine, analysis RL: ANST (Analytical study) (kringle 1 carboxyl terminus of plasminogen containing, purification by affinity chromatog. of)	
IT	9001-91-6P, Plasminogen RL: PREP (Preparation) (kringle 1 domain of, fusion products with B domain of protein A and, recombinant preparation of)	
L36	ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2005 ACS on STN	
AN	1989:491713 HCAPLUS	
DN	111:91713	
ED	Entered STN: 16 Sep 1989	
TI	Manufacture of tissue plasminogen activator analogs by recombinant DNA technology	
IN	Mulvihill, Eileen R.; Nexo, Bjorn A.; Yoshitake, Shinji; Ikeda, Yasunori; Suzuki, Suguru; Hashimoto, Akira; Yuzuriha, Teruaki	

PA ZymoGenetics, Inc., USA; Novo Industri A/S; Eisai Co., Ltd.
 SO Eur. Pat. Appl., 54 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM C12N009-50

ICS C12N015-00; C07H021-04; C12N005-00; A61K037-54

ICI C12N005-00, C12R001-19

CC 3-4 (Biochemical Genetics)

Section cross-reference(s): 13, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 293934	A1	19881207	EP 1988-108949	19880603 <--
	EP 293934	B1	19940831		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	FI 8802628	A	19881205	FI 1988-2628	19880603 <--
	NO 8802453	A	19881205	NO 1988-2453	19880603 <--
	NO 179754	B	19960902		
	NO 179754	C	19961211		
	DK 8803022	A	19890203	DK 1988-3022	19880603 <--
	ZA 8803958	A	19890726	ZA 1988-3958	19880603 <--
	ES 2058180	T3	19941101	ES 1988-108949	19880603 <--
	JP 01085078	A2	19890330	JP 1988-138232	19880604 <--
	JP 04048433	B4	19920806		
	KR 9705251	B1	19970414	KR 1988-6716	19880604 <--
	AU 8817410	A1	19881208	AU 1988-17410	19880606 <--
	AU 617323	B2	19911128		
	US 5149533	A	19920922	US 1991-747452	19910812 <--
	PRAI US 1987-58217	A	19870604	<--	

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	EP 293934	ICM	C12N009-50
		ICS	C12N015-00; C07H021-04; C12N005-00; A61K037-54
		ICI	C12N005-00, C12R001-19
	EP 293934	ECLA	C12N009/72B <--

AB Tissue plasminogen activator (t-PA) analogs which exhibit greater specificity for fibrin than native t-PA are disclosed. Native t-PA contains 2 triple disulfide-bonded regions, the kringle domains K1 and K2, which participate in the binding of t-PA to fibrin. In this invention, the K1 domain of native t-PA is replaced with that from another source. The t-PA analogs may further include a variety of substitutions and modifications. A cDNA comprising the coding sequence for native human t-PA was constructed from an mRNA isolated from the Bowes melanoma cell line. This cDNA was then used to construct the plasmid pDR1296. Because the prepro-sequence of t-PA was not present in pDR1296, it was constructed from synthesized oligonucleotides and subsequently joined to the cDNA in the vector Zem99. Here the complete t-PA coding sequence was sandwiched between a metallothionein I promoter and a human growth hormone terminator. The K1 domain of plasminogen was constructed from 11 oligonucleotides and was then inserted into the t-PA cDNA as a replacement for the K1 domain of t-PA. The resultant plasmid, Zem99-8000, was used to transform E. coli.

ST tissue plasminogen activator mutation; human tissue plasminogen activator gene cloning

IT Mammal

(cloning in cells of, of tissue plasminogen activator analog gene of human)

IT Escherichia coli

(cloning in, of tissue plasminogen activator analog gene of human)

IT Gene and Genetic element, animal

IT RL: BIOL (Biological study)
(for tissue plasminogen activator analog, of human)

IT Protein sequences
(of kringle domain for human tissue plasminogen activator analog)

IT Molecular cloning
(of tissue plasminogen activator analog gene, of human)

IT Protein sequences
(of tissue plasminogen activator native and variants forms, of human, complete)

IT Fibrins
RL: BIOL (Biological study)
(tissue plasminogen activator of human with enhanced binding to, construction of)

IT Proteins, specific or class
RL: PRP (Properties)
(C, growth factor domain of, in tissue plasminogen activator analog of human)

IT Plasmid and Episome
(Zem99, tissue plasminogen activator gene of human on, for site-specific mutagenesis)

IT Plasmid and Episome
(Zem99-8000, tissue plasminogen activator analog gene of human on)

IT Plasmid and Episome
(Zem99-8100, tissue plasminogen activator analog gene of human on)

IT Plasmid and Episome
(pDR1296, tissue plasminogen activator gene of human on, cloning of, in Escherichia coli)

IT Deoxyribonucleic acid sequences
(plasmin-specifying, kringle domain)

IT Mutation
(site-specific, of tissue plasminogen activator, of human, for enhanced binding to fibrin)

IT Deoxyribonucleic acid sequences
(tissue-type plasminogen activator-specifying, native and variant forms, of human, complete)

IT 122007-78-7 122007-79-8 122007-80-1 122007-81-2 122007-82-3
122007-83-4 122007-84-5 122007-85-6
RL: PRP (Properties)
(amino acid sequence of)

IT 84933-03-9, Plasminogen activator (human tissue-type precursor protein moiety reduced) 84933-04-0, Plasminogen activator (human tissue-type protein moiety reduced)
RL: PRP (Properties)
(amino acid sequence of, preparation of analogs of)

IT 122071-87-8, 84-162-Plasminogen (human liver clone pPLGKG protein moiety reduced)
RL: PRP (Properties)
(amino acid sequence of, recombinant tissue plasminogen activator containing)

IT 122071-58-3 122071-59-4 122071-60-7 122071-61-8 122071-62-9
122071-63-0 122071-64-1 122092-15-3 122092-16-4
RL: PRP (Properties)
(as finger domain of human tissue plasminogen activator analog)

IT 122071-86-7
RL: PRP (Properties)
(as kringle domain for human tissue plasminogen activator analog)

IT 9001-25-6, Blood-coagulation factor VII 9001-28-9, Factor IX
9001-29-0, Factor X

RL: PRP (Properties)
 (growth factor domain of, in tissue **plasminogen activator**
 analog of human)

IT 9001-26-7, Prothrombin 9001-30-3, Blood-coagulation factor XII
 9001-91-6, **Plasminogen**

RL: PRP (Properties)
 (kringle domain of, substitution of, for that of human tissue
plasminogen activator)

IT 122006-81-9 122006-82-0, Deoxyribonucleic acid (human clone Zem94
 tissue-type **plasminogen activator messenger RNA-complementary**)
 122006-83-1 122006-86-4 122006-87-5 122006-88-6 122006-89-7

RL: PRP (Properties); BIOL (Biological study)
 (nucleotide sequence of)

IT 105913-11-9, **Plasminogen activator**

RL: PRP (Properties)
 (tissue-type, of human, replacement of kringle domain of, for enhanced
 binding to fibrin)

=> fil reg

FILE 'REGISTRY' ENTERED AT 14:01:47 ON 15 FEB 2005

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
 provided by InfoChem.

STRUCTURE FILE UPDATES: 14 FEB 2005 HIGHEST RN 831169-46-1

DICTIONARY FILE UPDATES: 14 FEB 2005 HIGHEST RN 831169-46-1

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
 conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
 information enter HELP PROP at an arrow prompt in the file or refer
 to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

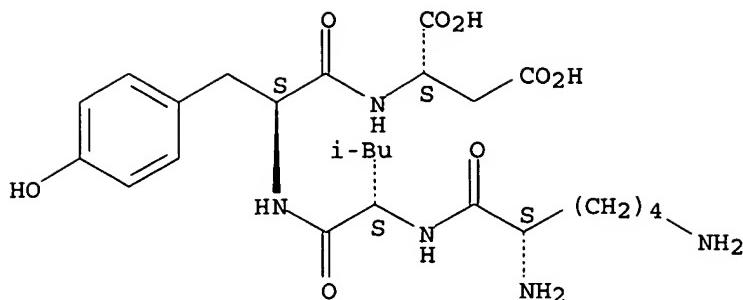
=> => d browse 138

:1-51

L38 ANSWER 1 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 679784-39-5 REGISTRY
 CN L-Aspartic acid, L-lysyl-L-leucyl-L-tyrosyl- (9CI) (CA INDEX NAME)
 FS PROTEIN SEQUENCE; STEREOSEARCH
 MF C25 H39 N5 O8
 SR CA
 LC STN Files: CA, CAPLUS
 DT.CA CAPplus document type: Journal
 RL.NP Roles from non-patents: BIOL (Biological study); PRP (Properties); USES
 (Uses)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.



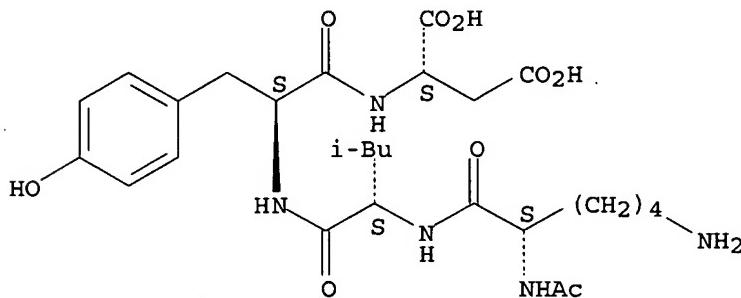
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 2 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 679784-35-1 REGISTRY
CN L-Aspartic acid, N₂-acetyl-L-lysyl-L-leucyl-L-tyrosyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C27 H41 N5 O9
SR CA
LC STN Files: CA, CAPLUS
DT.CA Caplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 3 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 666870-39-9 REGISTRY
CN 38: PN: US6699838 SEQID: 38 unclaimed protein (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

DT.CA CAplus document type: Patent
RL.P Roles from patents: PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 4 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 666870-38-8 REGISTRY
CN 37: PN: US6699838 SEQID: 37 unclaimed protein (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 5 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 666870-37-7 REGISTRY
CN 36: PN: US6699838 SEQID: 36 unclaimed protein (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PRP (Properties)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 6 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 666870-36-6 REGISTRY
CN 35: PN: US6699838 SEQID: 35 unclaimed protein (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PRP (Properties)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 7 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 666870-35-5 REGISTRY
CN 34: PN: US6699838 SEQID: 34 unclaimed protein (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PRP (Properties)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 8 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 666867-41-0 REGISTRY
CN Peptide, (Pro-Arg-Lys-Leu-Tyr-Asp-Xaa) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 18: PN: US6699838 SEQID: 18 claimed protein
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

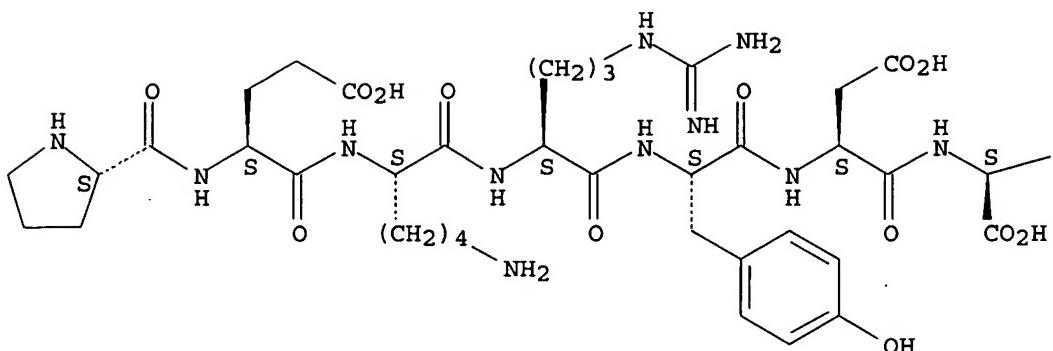
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 9 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 666829-12-5 REGISTRY
CN L-Tyrosine, L-prolyl-L- α -glutamyl-L-lysyl-L-arginyl-L-tyrosyl-L- α -aspartyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 39: PN: US6699838 SEQID: 39 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C44 H63 N11 O14
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

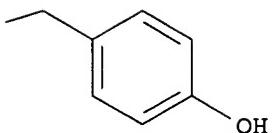
RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 10 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 506450-18-6 REGISTRY
 CN Plasminogen (cattle kringle 1 fragment) (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 13: PN: US20030064926 SEQID: 11 claimed protein
 FS PROTEIN SEQUENCE
 MF Unspecified
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA Caplus document type: Patent.
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 *** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 11 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 506450-15-3 REGISTRY
 CN Plasminogen (human kringle 1 fragment) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 10: PN: US20030064926 SEQID: 8 claimed protein
 FS PROTEIN SEQUENCE
 MF Unspecified
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA Caplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 *** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 12 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 506450-14-2 REGISTRY
 CN Plasminogen (mouse kringle 1 fragment) (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 9: PN: US20030064926 SEQID: 7 claimed protein
 FS PROTEIN SEQUENCE
 MF Unspecified
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA Caplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

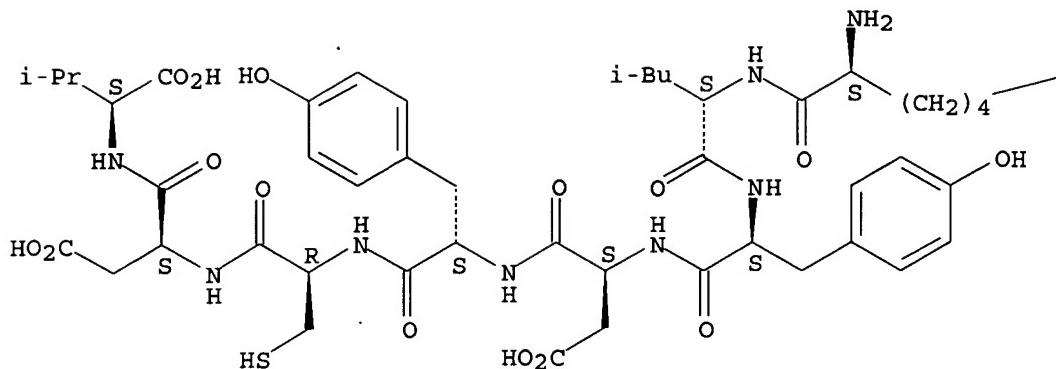
RELATED SEQUENCES AVAILABLE WITH SEQLINK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 *** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 13 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 354138-60-6 REGISTRY
 CN L-Valine, L-lysyl-L-leucyl-L-tyrosyl-L- α -aspartyl-L-tyrosyl-L-cysteinyl-L- α -aspartyl- (9CI) (CA INDEX NAME)
 FS PROTEIN SEQUENCE; STEREOSEARCH
 MF C46 H67 N9 O15 S
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA Caplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); OCCU (Occurrence); PRP (Properties)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

 ---NH_2

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 14 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 265296-51-3 REGISTRY
 CN 33: PN: US6057122 SEQID: 38 unclaimed protein (9CI) (CA INDEX NAME)
 FS PROTEIN SEQUENCE
 MF Unspecified
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA CAplus document type: Patent
 RL.P Roles from patents: PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 *** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 15 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 265296-50-2 REGISTRY
 CN 32: PN: US6057122 SEQID: 37 unclaimed protein (9CI) (CA INDEX NAME)
 FS PROTEIN SEQUENCE
 MF Unspecified
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA CAplus document type: Patent
 RL.P Roles from patents: PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 *** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 16 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 265296-49-9 REGISTRY
CN 31: PN: US6057122 SEQID: 36 unclaimed protein (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PRP (Properties)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 17 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 265296-48-8 REGISTRY
CN 30: PN: US6057122 SEQID: 35 unclaimed protein (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PRP (Properties)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

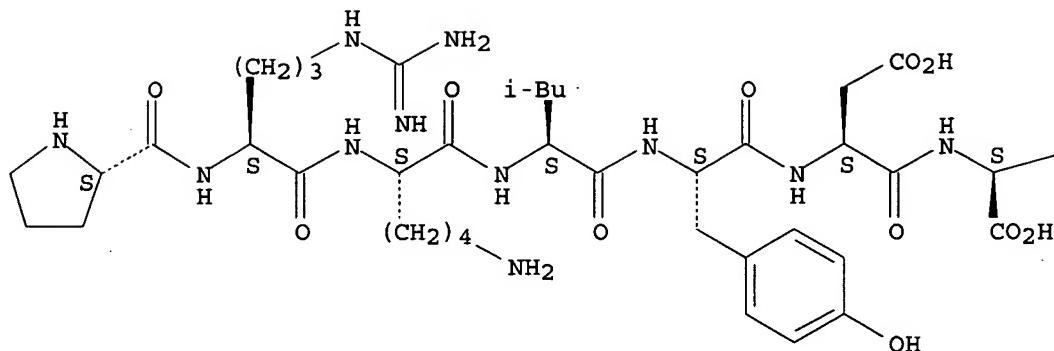
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 18 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 265110-89-2 REGISTRY
CN L-Tyrosine, L-proyl-L-arginyl-L-lysyl-L-leucyl-L-tyrosyl-L- α -aspartylyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C45 H67 N11 O12
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PRP (Properties)

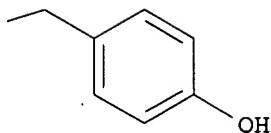
RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 19 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 264868-26-0 REGISTRY

CN 355-543-Plasminogen (human) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 7: PN: US6057122 TABLE: 1 claimed protein

FS PROTEIN SEQUENCE

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

DT.CA CAplus document type: Patent

RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PROC (Process); PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 20 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN

RN 251555-93-8 REGISTRY

CN L-Aspartic acid, N2-[(1,1-dimethylethoxy)carbonyl]-L-lysyl-L-leucyl-N-methyl-L-phenylalanyl-, bis(phenylmethyl) ester (9CI) (CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

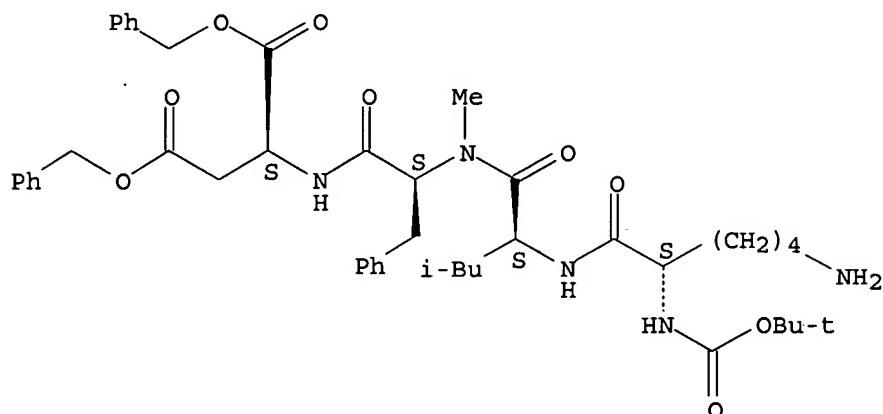
MF C45 H61 N5 O9

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER
 DT.CA Caplus document type: Patent
 RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.

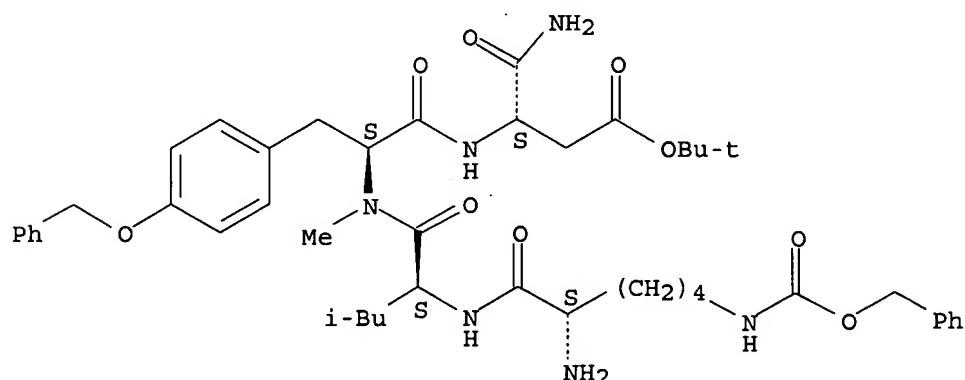


1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 21 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 251555-92-7 REGISTRY
 CN L- α -Asparagine, N6-[(phenylmethoxy)carbonyl]-L-lysyl-L-leucyl-N-methyl-O-(phenylmethyl)-L-tyrosyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)
 FS PROTEIN SEQUENCE; STEREOSEARCH
 MF C45 H62 N6 O9
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER
 DT.CA Caplus document type: Patent
 RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.

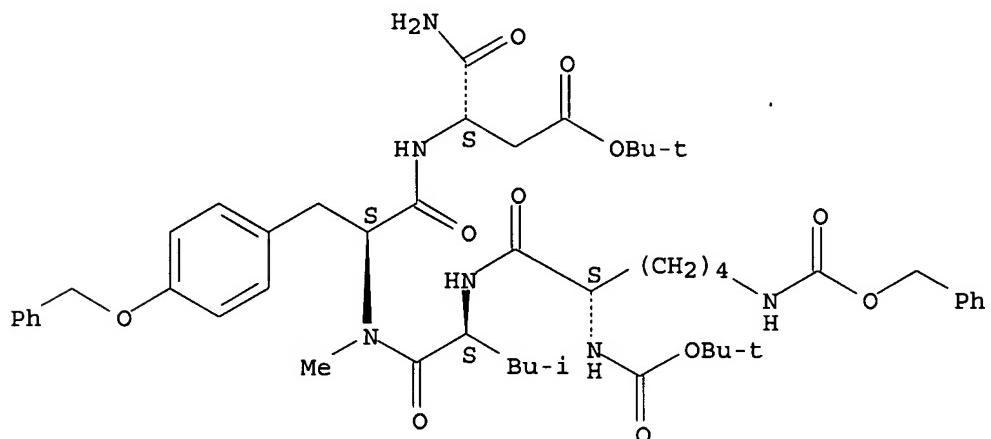


1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 22 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 251555-91-6 REGISTRY
 CN L- α -Asparagine, N2-[(1,1-dimethylethoxy)carbonyl]-N6-
 [(phenylmethoxy)carbonyl]-L-lysyl-L-leucyl-N-methyl-O-(phenylmethyl)-L-
 tyrosyl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)
 FS PROTEIN SEQUENCE; STEREOSEARCH
 MF C50 H70 N6 O11
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER
 DT.CA CAplus document type: Patent
 RL.P Roles from patents: PREP (Preparation); RACT (Reactant or reagent)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.

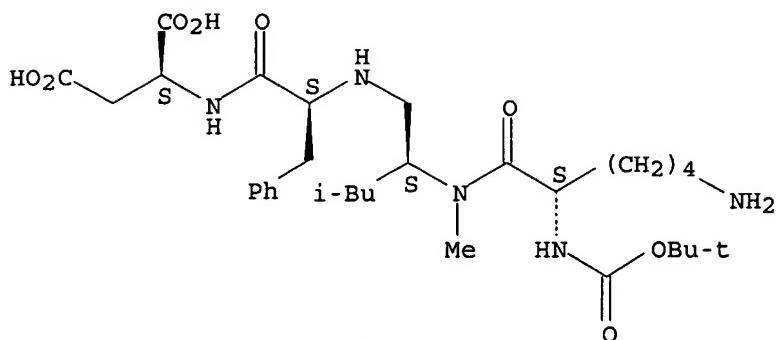


1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 23 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 251555-86-9 REGISTRY
 CN L-Aspartic acid, N2-[(1,1-dimethylethoxy)carbonyl]-L-lysyl-N-methyl-L-
 leucyl- ψ (CH₂-NH)-L-phenylalanyl- (9CI) (CA INDEX NAME)
 FS PROTEIN SEQUENCE; STEREOSEARCH
 MF C31 H51 N5 O8
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER
 DT.CA CAplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES
 (Uses)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.

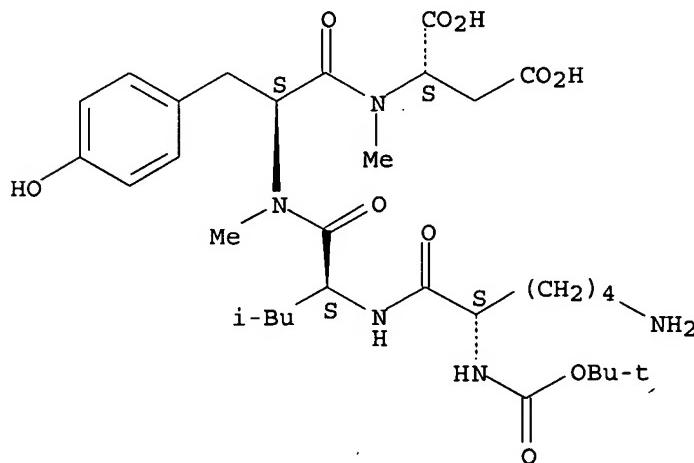


1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 24 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 251555-85-8 REGISTRY
 CN L-Aspartic acid, N2-[(1,1-dimethylethoxy)carbonyl]-L-lysyl-L-leucyl-N-methyl-L-tyrosyl-N-methyl- (9CI) (CA INDEX NAME)
 FS PROTEIN SEQUENCE; STEREOSEARCH
 MF C32 H51 N5 O10
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER
 DT.CA CAplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 25 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 251555-84-7 REGISTRY
 CN L-Aspartic acid, N2-[(1,1-dimethylethoxy)carbonyl]-L-lysyl-N-methyl-L-leucyl-N-methyl-L-tyrosyl- (9CI) (CA INDEX NAME)
 FS PROTEIN SEQUENCE; STEREOSEARCH

MF C32 H51 N5 O10

SR CA

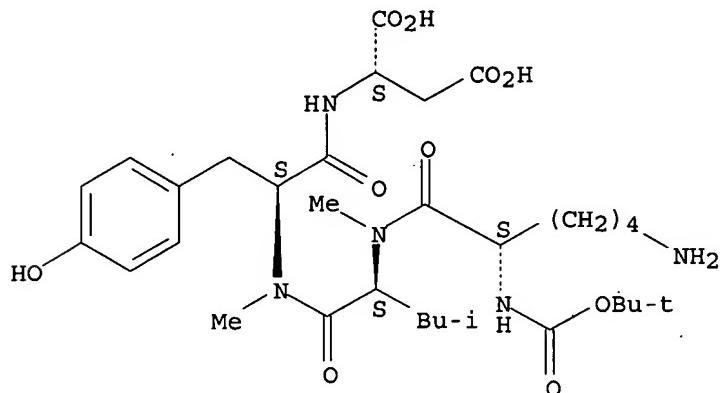
LC STN Files: CA, CAPLUS, TOXCENTER

DT.CA CAplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 26 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN

RN 251555-83-6 REGISTRY

CN L-Aspartic acid, N2-acetyl-L-lysyl-L-leucyl-N-methyl-L-phenylalanyl- (9CI)
(CA INDEX NAME)

FS PROTEIN SEQUENCE; STEREOSEARCH

MF C28 H43 N5 O8

SR CA

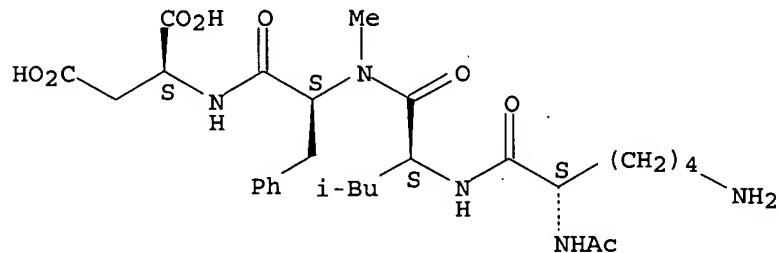
LC STN Files: CA, CAPLUS, TOXCENTER

DT.CA CAplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 27 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN

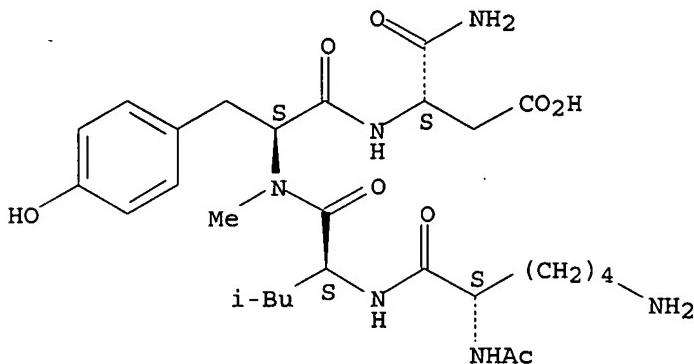
RN 251555-82-5 REGISTRY

CN L- α -Asparagine, N2-acetyl-L-lysyl-L-leucyl-N-methyl-L-tyrosyl- (9CI)

(CA INDEX NAME)
 FS PROTEIN SEQUENCE; STEREOSEARCH
 MF C28 H44 N6 O8
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER
 DT.CA CAplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 28 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 250163-86-1 REGISTRY
 CN 11: PN: US5981484 SEQID: 11 unclaimed protein (9CI) (CA INDEX NAME)
 FS PROTEIN SEQUENCE
 MF Unspecified
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA CAplus document type: Patent
 RL.P Roles from patents: PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 *** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 29 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 250159-84-3 REGISTRY
 CN 454-546-Plasminogen (human) (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 6: PN: US6057122 TABLE: 1 claimed protein
 CN 7: PN: US5981484 SEQID: 7 claimed protein
 FS PROTEIN SEQUENCE
 MF Unspecified
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA CAplus document type: Patent
 RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PROC (Process); PRP (Properties); USES (Uses)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 30 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 250159-83-2 REGISTRY
CN 449-546-Plasminogen (human) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 5: PN: US6057122 TABLE: 1 claimed protein
CN 6: PN: US5981484 SEQID: 6 claimed protein
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Patent
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PROC (Process); PRP (Properties); USES (Uses)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 31 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 250159-81-0 REGISTRY
CN 443-546-Plasminogen (human) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 4: PN: US6057122 TABLE: 1 claimed protein
CN 5: PN: US5981484 SEQID: 5 claimed protein
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Patent
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PROC (Process); PRP (Properties); USES (Uses)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 32 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 250159-80-9 REGISTRY
CN 454-543-Plasminogen (human) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 3: PN: US6057122 TABLE: 1 claimed protein
CN 4: PN: US5981484 SEQID: 4 claimed protein
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Patent
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PROC (Process); PRP (Properties); USES (Uses)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 2 REFERENCES IN FILE CA (1907 TO DATE)
 2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 33 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 250159-79-6 REGISTRY
 CN 449-543-Plasminogen (human) (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 2: PN: US6057122 TABLE: 1 claimed protein
 CN 3: PN: US5981484 SEQID: 3 claimed protein
 FS PROTEIN SEQUENCE
 MF Unspecified
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA CAplus document type: Patent
 RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PROC (Process); USES (Uses)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 *** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 2 REFERENCES IN FILE CA (1907 TO DATE)
 2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 34 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 250159-78-5 REGISTRY
 CN 443-543-Plasminogen (human) (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 2: PN: US5981484 SEQID: 2 claimed protein
 CN Plasminogen (human kringle 5 domain)
 FS PROTEIN SEQUENCE
 MF Unspecified
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA CAplus document type: Patent
 RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PROC (Process); USES (Uses)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

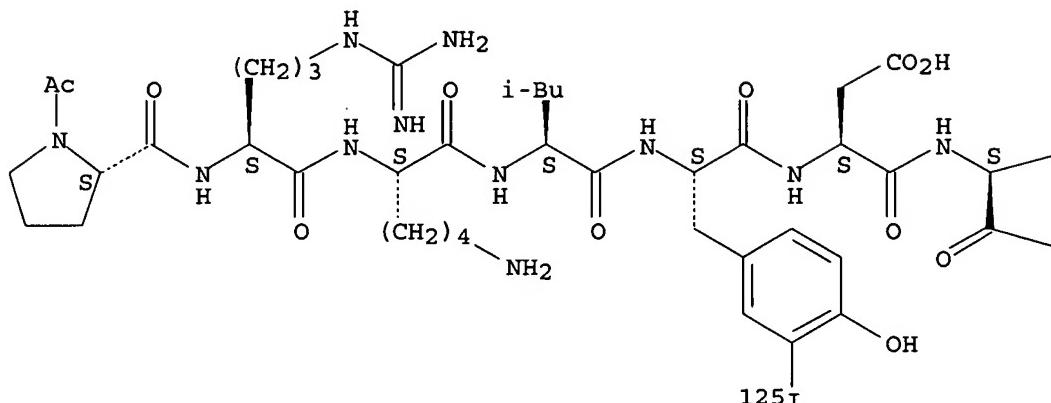
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 *** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 2 REFERENCES IN FILE CA (1907 TO DATE)
 2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 35 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 199664-91-0 REGISTRY
 CN L-Tyrosinamide, 1-acetyl-L-prolyl-L-arginyl-L-lysyl-L-leucyl-3-(iodo-125I)-L-tyrosyl-L- α -aspartyl- (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 21: PN: US6057122 PAGE: 39/40 claimed protein
 FS PROTEIN SEQUENCE; STEREOSEARCH
 MF C47 H69 I N12 O12
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA CAplus document type: Patent
 RLD.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

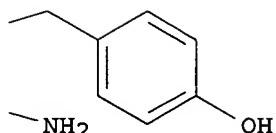
RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



3 REFERENCES IN FILE CA (1907 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 36 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN

RN 199664-90-9 REGISTRY

CN L-Tyrosinamide, 1-acetyl-L-prolyl-L-arginyl-L-lysyl-L-leucyl-L-tyrosyl-L-
 α-aspartyl-3-(iodo-125I)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 20: PN: US6057122 PAGE: 39/40 claimed protein

FS PROTEIN SEQUENCE; STEREOSEARCH

MF C47 H69 I N12 O12

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

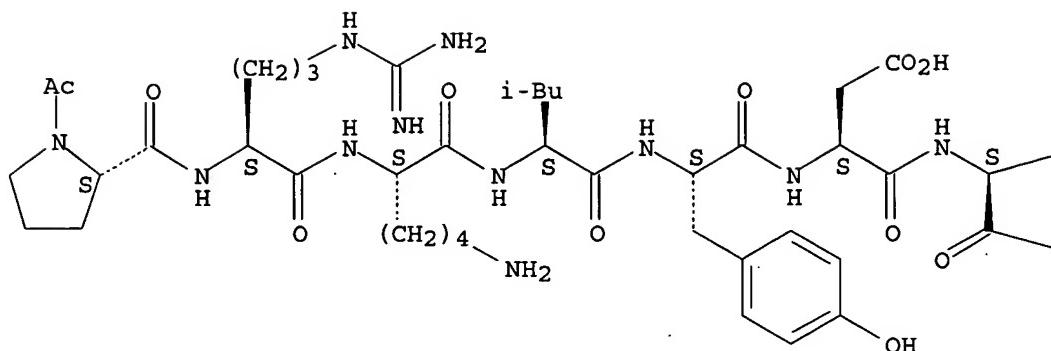
DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP
 (Properties); USES (Uses)

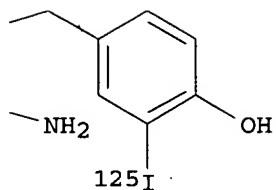
RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



3 REFERENCES IN FILE CA (1907 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 37 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN

RN 199664-89-6 REGISTRY

CN L- α -Asparagine, N2-acetyl-L-lysyl-L-leucyl-L-tyrosyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 19: PN: US6057122 TABLE: 1 claimed protein

FS PROTEIN SEQUENCE; STEREOSEARCH

MF C27 H42 N6 O8

SR CA

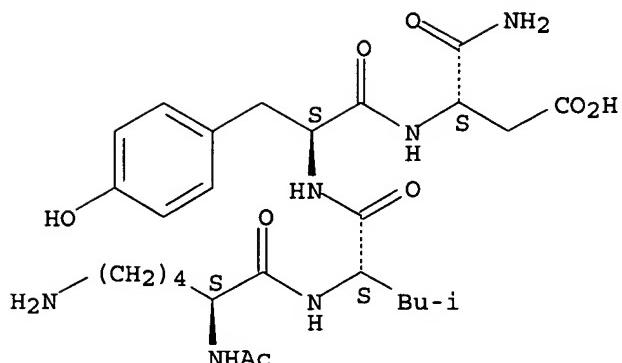
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.



3 REFERENCES IN FILE CA (1907 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 38 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN

RN 199664-88-5 REGISTRY

CN L-Tyrosinamide, 1-acetyl-L-prolyl-L-arginyl-L-lysyl-L-leucyl-L-tyrosyl-L-
 α-aspartyl-3-iodo- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 18: PN: US6057122 TABLE: 1 claimed protein

FS PROTEIN SEQUENCE; STEREOSEARCH

MF C47 H69 I N12 O12

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

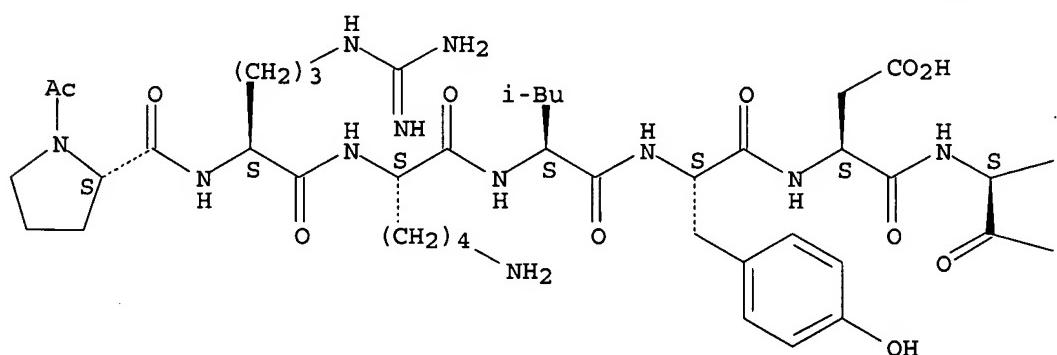
DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP
 (Properties); USES (Uses)

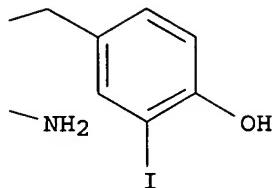
RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 39 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN

RN 199664-87-4 REGISTRY

CN L-Tyrosinamide, 1-acetyl-L-prolyl-L-arginyl-L-lysyl-L-leucyl-3-iodo-L-tyrosyl-L- α -aspartyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 17: PN: US6057122 TABLE: 1 claimed protein

ES PROTEIN SEQUENCE: STEREOSEARCH

TS PROTEIN SEQUENCE,
MF C47 H69 T N12 Q12

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

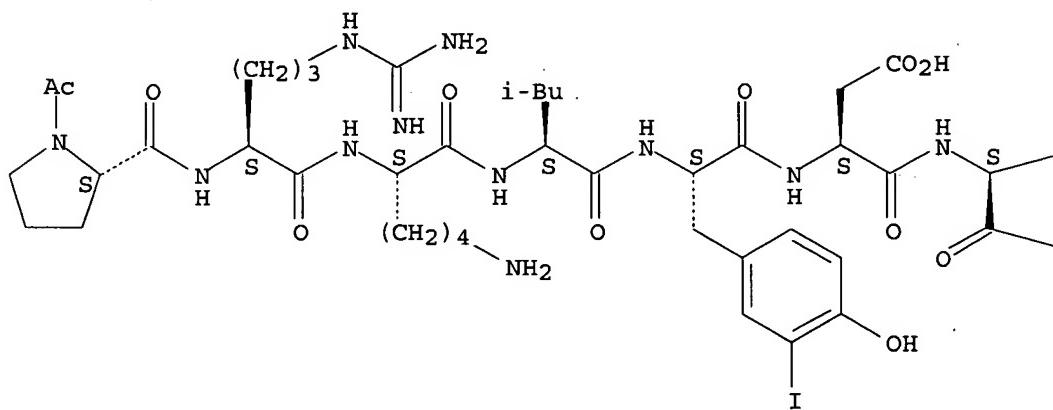
DT-CA CAplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

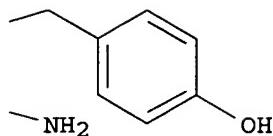
RELATED SEQUENCES AVAILABLE WITH SEOLINK

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



3 REFERENCES IN FILE CA (1907 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 40 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN

RN 199664-86-3 REGISTRY

CN L-Tyrosinamide, N₂-acetyl-L-arginyl-L-lysyl-L-leucyl-L-tyrosyl-L- α -aspartyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 16: PN: US6057122 TABLE: 1 claimed protein

FS PROTEIN SEQUENCE; STEREOSEARCH

MF C42 H63 N11 O11

SR CA

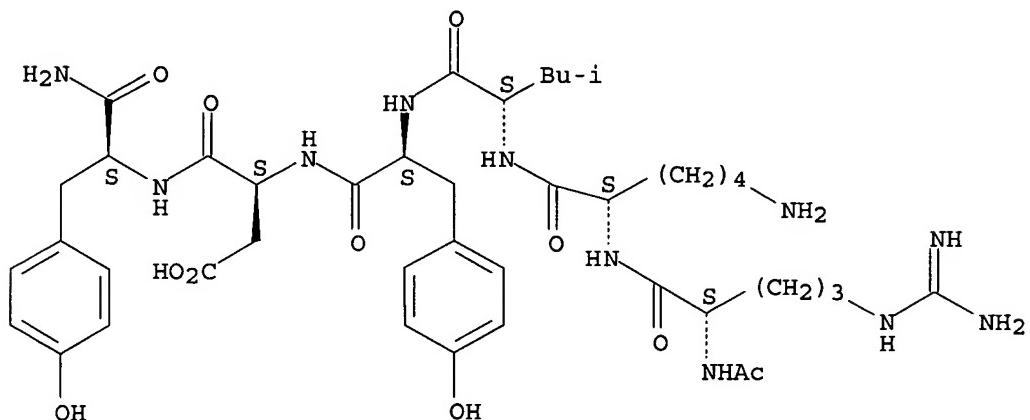
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

DT.CA CAPplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.



3 REFERENCES IN FILE CA (1907 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 41 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN

RN 199664-85-2 REGISTRY

CN L-Tyrosinamide, 1-acetyl-L-prolyl-L- α -glutamyl-L-lysyl-L-arginyl-L-tyrosyl-L- α -aspartyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

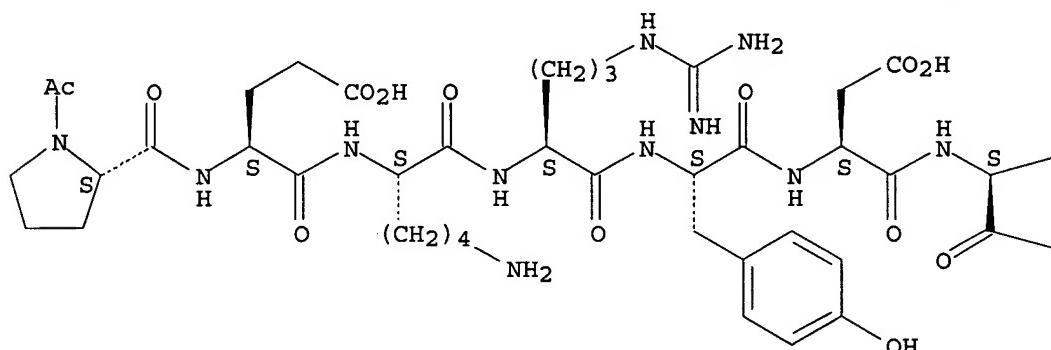
CN 15: PN: US6057122 TABLE: 1 claimed protein

FS PROTEIN SEQUENCE; STEREOSEARCH
 MF C46 H66 N12 O14
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA CAplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

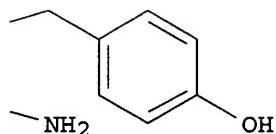
RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



3 REFERENCES IN FILE CA (1907 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

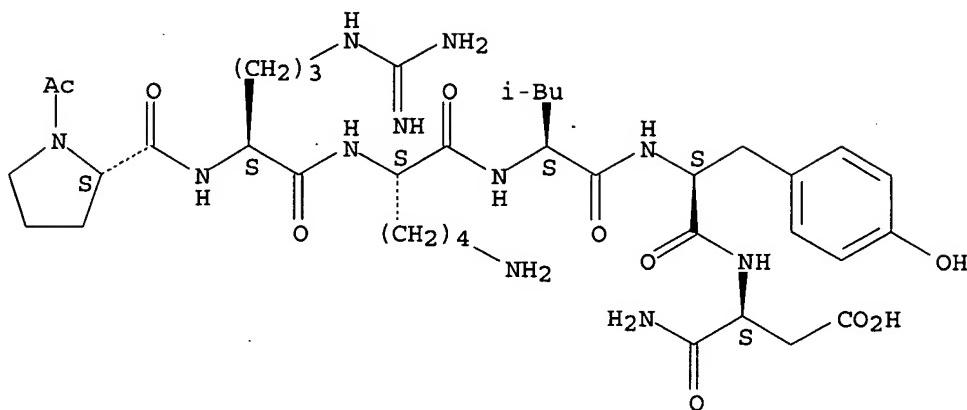
L38 ANSWER 42 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 199664-84-1 REGISTRY
 CN L- α -Asparagine, 1-acetyl-L-prolyl-L-arginyl-L-lysyl-L-leucyl-L-tyrosyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 14: PN: US6057122 TABLE: 1 claimed protein
 FS PROTEIN SEQUENCE; STEREOSEARCH
 MF C38 H61 N11 O10
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA CAplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.



3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 43 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN

RN 199664-83-0 REGISTRY

CN L-Tyrosinamide, 1-acetyl-L-prolyl-L-arginyl-L-lysyl-L-leucyl-L-tyrosyl-L-
α-aspartyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 13: PN: US6057122 TABLE: 1 claimed protein

FS PROTEIN SEQUENCE; STEREOSEARCH

MF C47 H70 N12 O12

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

DT.CA Cplus document type: Journal; Patent

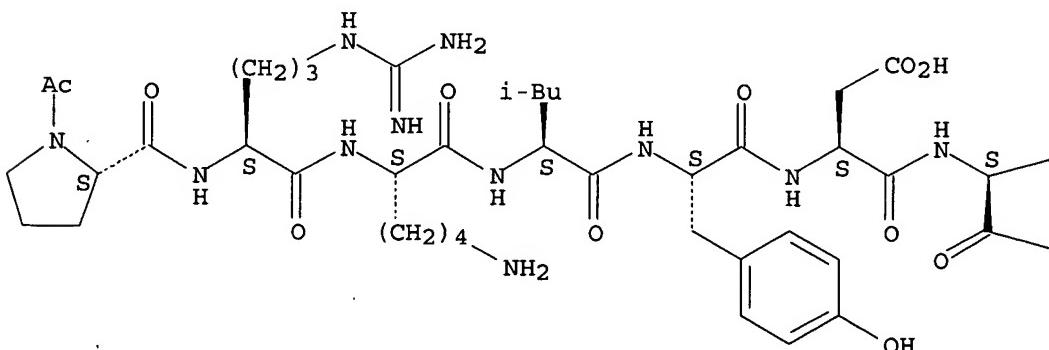
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP
(Properties); USES (Uses)

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation);
PRP (Properties)

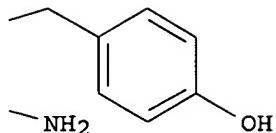
RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



4 REFERENCES IN FILE CA (1907 TO DATE)
 4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 44 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN

RN 199664-82-9 REGISTRY

CN L-Tyrosinamide, N-acetyl-L-tyrosyl-L-threonyl-L-threonyl-L-asparaginyl-L-prolyl-L-arginyl-L-lysyl-L-leucyl-L-tyrosyl-L- α -aspartyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 12: PN: US6057122 TABLE: 1 claimed protein

FS PROTEIN SEQUENCE; STEREOSEARCH

MF C68 H99 N17 O20

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

DT.CA Caplus document type: Journal; Patent

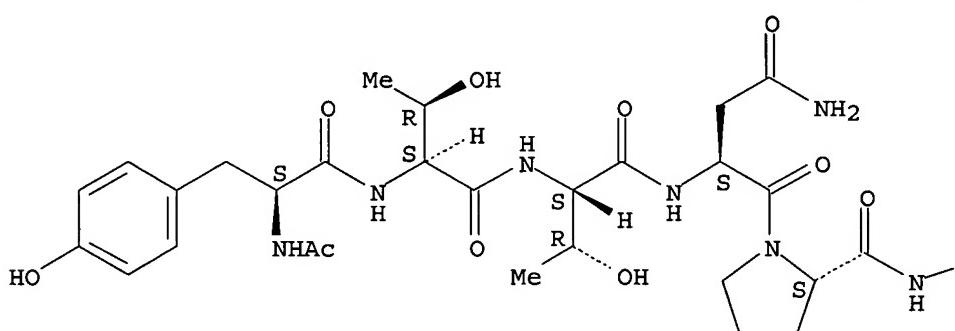
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation); PRP (Properties)

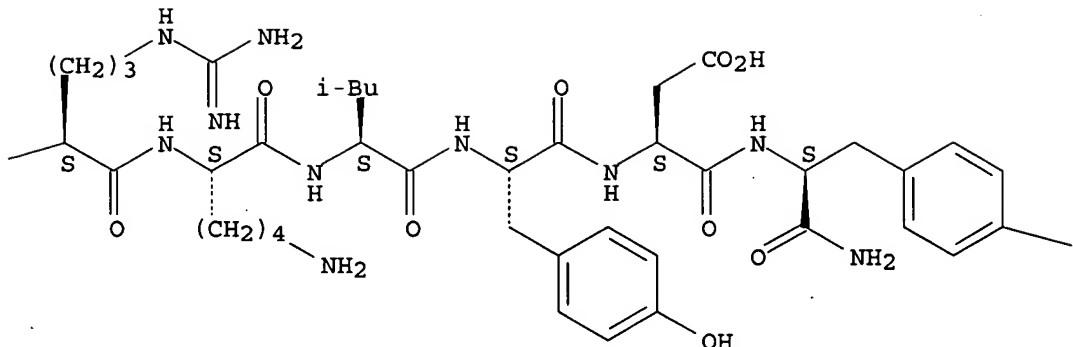
RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



PAGE 1-C

— OH

4 REFERENCES IN FILE CA (1907 TO DATE)
 4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 45 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN

RN 196417-08-0 REGISTRY

CN Plasminogen (human kringle 5 domain-containing fragment) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Plasminogen (human blood kringle 5 domain 80-amino-acid fragment)

FS PROTEIN SEQUENCE

MF Unspecified

CI MAN

SR CA

LC STN Files: CA, CAPLUS

DT.CA Caplus document type: Journal

RL.NP Roles from non-patents: BIOL (Biological study); PROC (Process); PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 46 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 185074-41-3 REGISTRY
CN Angiostatin (cattle krinkle 1 region-contg. fragment) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Angiostatin (ox krinkle 1 region-contg. fragment)
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER
DT.CA Caplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PRP (Properties); USES (Uses)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 47 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 185074-38-8 REGISTRY
CN Angiostatin (mouse krinkle 1 region-contg. fragment) (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
MF Unspecified
CI MAN
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER
DT.CA Caplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PRP (Properties); USES (Uses)

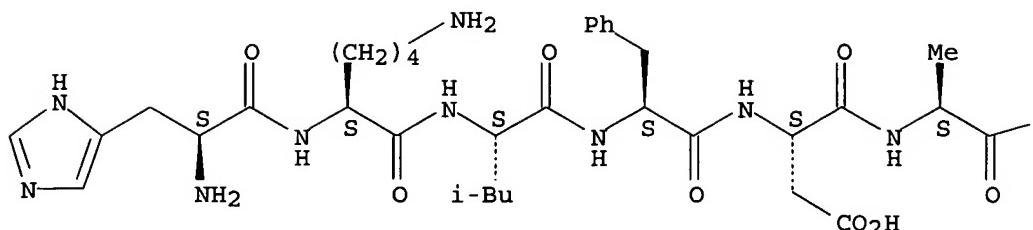
RELATED SEQUENCES AVAILABLE WITH SEQLINK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

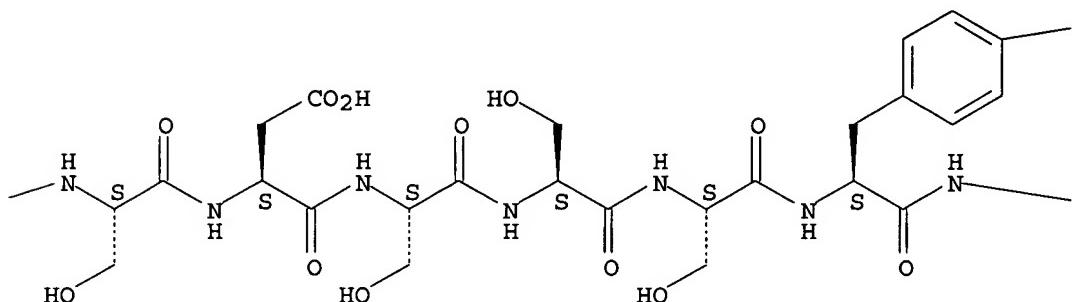
L38 ANSWER 48 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 168693-32-1 REGISTRY
CN L-Histidine, L-histidyl-L-lysyl-L-leucyl-L-phenylalanyl-L- α -aspartyl-L-alanyl-L-seryl-L- α -aspartyl-L-seryl-L-seryl-L-seryl-L-tyrosyl-L-lysyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C71 H104 N20 O24
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA Caplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); OCCU (Occurrence); PRP (Properties); USES (Uses)

Absolute stereochemistry.

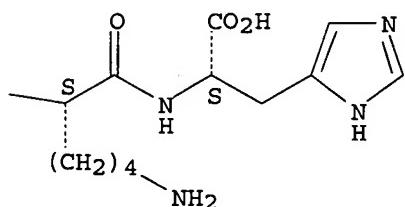
PAGE 1-A



PAGE 1-B



PAGE 1-C



1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 49 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 138726-05-3 REGISTRY
 CN 80-165-Plasminogen (human liver clone pPLGKG protein moiety reduced) (9CI)
 (CA INDEX NAME)
 FS PROTEIN SEQUENCE
 MF C423 H635 N121 O144 S7
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS
 DT.CA CAPplus document type: Patent
 RL.P Roles from patents: PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 50 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 122071-87-8 REGISTRY
CN 84-162-Plasminogen (human liver clone pPLGKG protein moiety reduced) (9CI)
(CA INDEX NAME)
OTHER NAMES:
CN 78-156-Plasminogen (human kringle 1 domain-containing fragment)
CN Angiostatin (human krinkle 1 region-contg. fragment)
FS PROTEIN SEQUENCE
MF C385 H582 N114 O127 S7
CI MAN
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Journal; Patent
RL.P Roles from patents: BIOL (Biological study); PRP (Properties); USES
(Uses)
RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation);
PROC (Process)

RELATED SEQUENCES AVAILABLE WITH SEQLINK

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 3 REFERENCES IN FILE CA (1907 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L38 ANSWER 51 OF 51 REGISTRY COPYRIGHT 2005 ACS on STN
RN 122071-86-7 REGISTRY
CN 84-162-Plasminogen (human liver clone pPLGKG protein moiety reduced),
88-L-aspartic acid- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE
MF C385 H581 N113 O128 S7
CI MAN
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: PRP (Properties)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
*** USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE ***
 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

:end

=>